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Water Resources Data for Kansas, Water Year 1979
Volume 2. Arkansas River Basin

(U.S.) Geological Survey
Lawrence, KS

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U.S. DEPARTMENT OF THE INTERIOR
March 3, 1849

Water Resources Data for Kansas

Volume 2. Arkansas River Basin

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT KS-79-2

WATER YEAR 1979

Prepared in cooperation with the State of Kansas
and with other agencies

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U. S. DEPARTMENT OF COMMERCE
SPRINGFIELD, VA. 22161

CALENDAR FOR WATER YEAR 1979

1978

OCTOBER

S	M	T	W	T	F	S
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1979

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1A

UNITED STATES DEPARTMENT OF THE INTERIOR

CECIL D. ANDRUS, Secretary

GEOLOGICAL SURVEY

H. William Menard, Director

For information on the water program in Kansas write to:

District Chief, Water Resources Division
U.S. Geological Survey
1950 Avenue "A" - Campus West
University of Kansas
Lawrence, Kansas 66045

1980

Preface

This report was prepared by personnel of the Kansas District of the Water Resources Division of the U.S. Geological Survey under the supervision of J. S. Rosenshein, District Chief, and A. Clebsch, Jr., Regional Hydrologist, Central Region. It was done in cooperation with the State of Kansas and with other agencies.

This report is one of a series issued by state. General direction for the series is by Philip Cohen, Chief Hydrologist, U.S. Geological Survey, and R. J. Dingman, Assistant Chief Hydrologist for Scientific Publications and Data Management.

Data for Kansas are in two volumes as follows:

Volume 1. Missouri River basin
Volume 2. Arkansas River basin

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Water resources data for the 1979 water year for Kansas consist of records of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes and reservoirs; and water levels and water quality in wells. This report contains discharge records for 65 gaging stations; stage and contents for 7 lakes and reservoirs; water quality for 62 gaging stations; and water levels for about 319 observation wells and water quality for about 243 wells. Also included are data for 38 crest-stage partial-record stations and 22 low-flow partial-record stations. All data in this report represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating State and Federal agencies in Kansas.

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INTRODUCTION

Water resources data for the 1979 water year for Kansas consist of records of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes and reservoirs; and water levels and water quality of ground water. This report contains discharge records for 65 gaging stations; stage and contents for 7 lakes and reservoirs; water-quality records for 62 gaging stations, and about 243 wells; and water levels for about 319 observation wells. Also included are 38 crest-stage partial-record stations and 22 low-flow partial-record stations. Locations of complete-record surface-water gaging stations, 1979 water year, are shown in figure 1 (see page 14). Locations of partial-record surface-water gaging stations, 1979 water year, are shown in figure 2 (see page 16). Locations of surface-water-quality stations, 1979 water year, are shown in figure 3 (see page 18). Locations of ground-water-level stations, 1979 water year, are shown in figure 4 (see page 20). Locations of ground-water-quality stations, 1979 water year, are shown in figure 5 (see page 22). Additional water data were collected at various sites not involved in the systematic data-collection program and are published as miscellaneous measurements. All data in this report represent that part of the National Water Data System collected by the U.S. Geological Survey and cooperating State and Federal agencies in Kansas.

Records of discharge or stage of streams and contents or stage of lakes and reservoirs were first published in a series of U.S. Geological Survey water-supply papers entitled "Surface Water Supply of the United States." Through September 30, 1960, these water-supply papers were in an annual series and then in a 5-year series for 1961-65 and 1966-70. Records of chemical quality, water temperatures, and suspended sediment were published from 1941 to 1970 in an annual series of water-supply papers entitled "Quality of Surface Waters of the United States." Records of ground-water levels were published from 1935 to 1974 in a series of water-supply papers entitled "Ground-Water Levels in the United States." Water-supply papers may be consulted in the libraries of the principal cities in the United States or may be purchased from Branch of Distribution, U.S. Geological Survey, 1200 South Eads Street, Arlington, VA 22202.

For water years 1961 through 1974, streamflow data were released by the Geological Survey in annual reports on a State-boundary basis. Water-quality records for water years 1964 through 1974 were similarly released either in separate reports or in conjunction with streamflow records.

Beginning with the 1975 water year, water data for streamflow, water quality, and ground water are published as an official Survey report on a State-boundary basis. These official Survey reports carry an identification number consisting of the two-letter State abbreviation, the last two digits of the water year and the volume number. For example, this volume is identified as "U.S. Geological Survey Water-Data Report KS-79-2." For archiving and general distribution, the reports for water years 1971-74 are also identified as water-data reports. These water-data reports are for sale in paper copy or in microfiche by the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161.

Additional information, including current prices, for ordering specific reports may be obtained from the district chief at the address given on the back of the title page or by telephone (913) 864-4321.

COOPERATION

The U.S. Geological Survey and organizations of the State of Kansas have had cooperative agreements for the systematic collection of streamflow records since 1895, for water-quality records since 1957, and for ground-water-level records since 1934. Organizations that assisted in collecting data through cooperative agreement with the Survey are:

Kansas Water Resources Board, Francine Neubauer, Executive Director;

Kansas Department of Health and Environment, Division of Environment, Gerald Stoltenberg, Director;

Kansas Geological Survey, W. W. Hambleton, State Geologist and Director;

Kansas Department of Transportation, E. E. Wilkinson, Bridge Engineer;

Kansas State Board of Agriculture, Division of Water Resources, G. E. Gibson, Chief Engineer;

City of Wichita, Bob Jennings, Flood Control Engineer.

The following Federal agencies assisted in collection of records published in this report by furnishing funds or services:

Corps of Engineers, U.S. Army, in collecting records for 78 gaging stations and 8 water-quality stations;

Soil Conservation Service, U.S. Department of Agriculture, in collecting records for 13 water-quality stations;

Environmental Protection Agency, in collecting records for 6 water-quality stations;

Bureau of Reclamation, U.S. Department of the Interior, in collecting records for 1 gaging station and 7 water-quality stations;

Bureau of Fish and Wildlife Service, U.S. Department of the Interior, in collecting records for 1 gaging station.

Organizations that supplied data are acknowledged in station descriptions. Chemical analyses of ground-water samples were prepared by the Kansas Department of Health and Environment; samples were collected by the U.S. Geological Survey.

HYDROLOGIC CONDITIONS

No extreme flood events or unusual sustained low-flow conditions occurred during the year. Total runoff for the year generally ranged from about 10 to 50 percent of the median in the western half of the State and about 90 to 140 percent of the median in the eastern half. Monthly and annual mean discharges are compared with median at two representative gaging stations in figure 6 (see page 24).

Ground-water levels in the western one-third of the State remained near record lows and continued to decline due to heavy withdrawals of water for irrigation.

DEFINITION OF TERMS

Terms related to streamflow, water-quality, and other hydrologic data, as used in this report, are defined below. See also the table for converting the inch-pound units used in this report to the International System of Units (SI) on the inside of the back cover.

Acre-foot (AC-FT, acre-ft) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,560 cubic feet or about 326,000 gallons or 1,233 cubic meters.

Algae are mostly aquatic single-celled, colonial, or multicelled plants containing chlorophyll and lacking roots, stems, and leaves.

Algal growth potential (AGP) is the maximum algal dry-weight biomass that can be produced in a natural water sample under standardized laboratory conditions. The growth potential is the algal biomass present at stationary phase and is expressed as milligrams (mg) dry weight of algae produced per liter (L) of sample.

Aquifer is a geologic formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield significant quantities of water to wells and springs.

Artesian means confined and is used to describe a well in which the water level stands above the top of the aquifer tapped by the well. A flowing artesian well is one in which the water level is above the land surface.

Bacteria are microscopic unicellular organisms, typically spherical, rodlike, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease; others perform an essential role in nature in the recycling of materials, for example, by decomposing organic matter into a form available for reuse by plants.

Immediate total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria which ferment lactose with gas formation within 48 hours at 35°C. In the laboratory these bacteria are defined as the organisms which produce colonies within 24 hours when incubated at 35°C ± 1.0°C on M-Endo agar (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 milliliters (mL) of sample.

Fecal coliform bacteria are bacteria that are present in the intestines or feces of warmblooded animals. They are often used as indicators of the sanitary quality of the water. In the laboratory they are defined as all organisms which produce blue colonies within 24 hours when incubated at 44.5°C ± 0.2°C on M-FC agar (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal streptococci bacteria are bacteria found also in intestines of warmblooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as gram-positive, cocci bacteria which are capable of growth in brain-heart infusion broth. In the laboratory they are defined as all the organisms which produce red or pink colonies within 48 hours at 35°C ± 1.0°C on KF Streptococcus agar (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Bed material is the unconsolidated material of which a streambed, lake, pond, reservoir, or estuary bottom is composed.

Biomass is the amount of living matter present at any given time, expressed as the mass per unit area or volume of habitat.

Ash mass is the mass or amount of residue present after the residue from the dry-mass determination has been ashed in a muffle furnace at a temperature of 500°C for 1 hour. The ash-mass values of zooplankton are expressed in grams per cubic meter (g/m^3), and periphyton and benthic organisms in grams per square meter (g/m^2).

Dry mass refers to the mass of residue present after drying in an oven at 60°C for zooplankton and 105°C for periphyton until the mass remains unchanged. This mass represents the total organic matter, ash and sediment, in the sample. Dry-mass values are expressed in the same units as ash mass.

Bottom material: See Bed material.

Cells/volume refers to the number of cells of any organism which is counted by using a microscope and grid or counting cell. Many planktonic organisms are multicelled and are counted according to the number of contained cells per sample, usually milliliters or liters.

Chemical oxygen demand (COD) is a measure of the chemically oxidizable material in the water and furnishes an approximation of the amount of organic and reducing material present. The determined value may correlate with natural water color or with carbonaceous organic pollution from sewage or industrial wastes.

Chlorophyll refers to the green pigments of plants. Chlorophyll a and b are the two most common pigments in plants.

Contents is the volume of water in a reservoir or lake. Unless otherwise indicated, volume is computed on the basis of a level pool and does not include bank storage.

Control designates a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural constriction of the channel, an artificial structure, or a uniform cross section over a long reach of the channel.

Control structure as used in this report is a structure on a stream or canal that is used to regulate the flow or stage of the stream.

Cubic foot per second (CFS, ft^3/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to approximately 7.48 gallons per second or 448.8 gallons per minute or 0.02832 cubic meters per second.

Discharge is the volume of water (or more broadly, volume of fluid plus suspended sediment) that passes a given point within a given period of time.

Mean discharge (MEAN) is the arithmetic mean of individual daily mean discharges during a specific period.

Instantaneous discharge is the discharge at a particular instant of time.

Dissolved refers to the amount of substance present in true chemical solution. In practice, however, the term includes all forms of substance that will pass through a 0.45-micrometer membrane filter and, thus, may include some very small (colloidal) suspended particles. Analyses are performed on filtered samples.

Drainage area of a stream at a specified location is that area, measured in a horizontal plane, enclosed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the stream above the specified point. Figures of drainage area given herein include all closed basins, or noncontribution areas, within the area unless otherwise noted.

Drainage basin is a part of the surface of the earth that is occupied by a drainage system, which consists of a surface stream or a body of impounded surface water together with all tributary surface streams and bodies of impounded surface water.

Gage height (G.H.) is the water-surface elevation referred to some arbitrary gage datum. Gage height is often used interchangeably with the general term "stage," although gage height is more appropriate when used with a reading on a gage.

Gaging station is a particular site on a stream, canal, lake, or reservoir where systematic observations of hydrologic data are obtained.

Hardness of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is attributable to the presence of alkaline earths (principally calcium and magnesium) and is expressed as equivalent calcium carbonate ($CaCO_3$).

Hydrologic unit is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as delineated by the Office of Water Data Coordination on the State Hydrologic Unit Maps; each hydrologic unit is identified by an 8-digit number.

Micrograms per kilogram (ug/kg) is a unit expressing the concentration of a chemical element as the mass (micrograms) of the element sorbed per unit mass (kilogram) of sediment.

Micrograms per liter (UG/L, ug/L) is a unit expressing the concentration of chemical constituents in solution as the mass (micrograms) of solute per unit volume (liter) of water. One thousand micrograms per liter is equivalent to 1 milligram per liter.

Milligrams per liter (MG/L, mg/L) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per liter represent the mass of solute per unit volume (liter) of water. Milligrams or micrograms per liter may be converted to milliequivalents (one thousandth of a gram-equivalent weight of a constituent) per liter by using the factors in table 1 (see page 26). Concentration of suspended sediment also is expressed in milligrams per liter and is based on the mass of sediment per liter of water-sediment mixture. Sediment concentrations may be converted to parts per million (ppm) by using the factors in table 2 (see page 26).

National Geodetic Vertical Datum of 1929 (NGVD) is a geodetic datum derived from a general adjustment of the first order level nets of both the United States and Canada. It was formerly called "Sea Level Datum of 1929" or "mean sea level" in this series of reports. Although the datum was derived from the average sea level over a period of many years at 26 tide stations along the Atlantic, Gulf of Mexico, and Pacific Coasts, it does not necessarily represent local mean sea level at any particular place.

Organism is any living entity, such as an insect, phytoplankter, or zooplankter.

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per area habitat, usually square meters, acres, or hectares. Periphyton benthic organisms and macrophytes are expressed in these terms.

Organism count/volume refers to the number of organisms collected and enumerated in a sample and adjusted to the number per sample volume, usually milliliters or liters. Numbers of planktonic organisms can be expressed in these terms.

Total organism count is the total number of organisms collected and enumerated in any particular sample.

Partial-record station is a particular site where limited streamflow and/or water-quality data are collected systematically over a period of years for use in hydrologic analyses.

Particle size is the diameter, in millimeters (mm), of suspended sediment or bed material determined by either sieve or sedimentation methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) determine fall diameter of particles in either distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling).

Particle-size classification used in this report agrees with recommendations made by the American Geophysical Union Subcommittee on Sediment Terminology. The classification is as follows:

Classification	Size (mm)	Method of analysis
Clay...........	0.00024 - 0.004	Sedimentation.
Silt...........	.004 - .062	Sedimentation.
Sand...........	.062 - 2.0	Sedimentation or sieve.
Gravel.........	2.0 - 64.0	Sieve.

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. Most of the organic material is removed, and the sample is subjected to mechanical and chemical dispersion before analysis in distilled water.

Percent composition is a unit for expressing the ratio of a particular part of a sample or population to the total sample or population in terms of types, numbers, mass or volume.

Pesticides are chemical compounds used to control undesirable plants and animals. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides. Insecticides and herbicides, which control insects and plants respectively, are the two categories reported.

Picocurie (PC, pCi) is one trillionth (1×10^{12}) of the amount of radioactivity represented by a curie (Ci). A curie is the amount of radioactivity that yields 3.7×10^{10} radioactive disintegrations per second. A picocurie yields 2.22 dpm (disintegrations per minute).

Plankton is the community of suspended, floating, or weakly swimming organisms that live in the open water of lakes and rivers.

Phytoplankton is the plant part of the plankton. They are usually microscopic, and their movement is subject to the water currents. Phytoplankton growth is dependent upon solar radiation and nutrient substances. Because they are able to incorporate as well as release materials to the surrounding water, the phytoplankton have a profound effect upon the quality of the water. They are the primary food producers in the aquatic environment and are commonly known as algae.

Sediment is solid material that originates mostly from disintegrated rocks and is transported by, suspended in, or deposited from water; it includes chemical and biochemical precipitates and decomposed organic material, such as humus. The quantity, characteristics, and cause of the occurrence of sediment in streams are influenced by environmental factors. Some major factors are degree of slope, length of slope, soil characteristics, land usage, and quantity and intensity of precipitation.

Suspended sediment is the sediment that at any given time is maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid.

Suspended-sediment concentration is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 ft above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L).

Suspended-sediment discharge (tons/day) is the rate at which dry weight of sediment passes a section of a stream or is the quantity of sediment, as measured by dry weight or volume, that passes a section in a given time. It is computed by multiplying discharge times milligrams per liter times 0.0027.

Suspended-sediment load is quantity of suspended sediment passing a section in a specified period.

Solute is any substance derived from the atmosphere, vegetation, soil, or rocks that is dissolved in water.

Specific conductance is a measure of the ability of a water to conduct an electrical current. It is expressed in micromhos per centimeter at 25°C. Specific conductance is related to the type and concentration of ions in solution and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in micromhos). This relation is not constant from stream to stream, and it may vary in the same source with changes in the composition of the water.

Stage-discharge relation is the relation between gage height (stage) and volume of water, per unit of time, flowing in a channel.

Streamflow is the discharge that occurs in a natural channel. Although the term "discharge" can be applied to the flow of a canal, the word "streamflow" uniquely describes the discharge in a surface stream course. The term "streamflow" is more general than "runoff," as streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

Substrate is the physical surface upon which an organism lives.

Natural substrate refers to any naturally occurring emersed or submersed solid surface, such as a rock or tree, upon which an organism lives.

Artificial substrate is a device that is purposely placed in a stream or lake for colonization of organisms. The artificial substrate simplifies the community structure by standardizing the substrate from which each sample is taken. Examples of artificial substrates are basket samplers (made of wire cages filled with clean streamside rocks) and multiplate samplers (made of hardboard) for benthic organism collection and plexiglass strips for periphyton collection.

Surface area of a lake is that area outlined on the latest U.S. Geological Survey topographic map as the boundary of the lake and measured by a planimeter in acres. In localities not covered by topographic maps, the areas are computed from the best maps available at the time planimetered. All areas shown are those for the stage when the planimetered map was made.

Suspended concentration (as used in tables of chemical analyses) refers to the total concentration of the chemical constituent in a water-sediment mixture. The water-sediment mixture is associated with (or sorbed on) that material retained on a 0.45-micrometer filter.

Tons per acre-foot indicates the dry mass of dissolved solids in 1 acre-foot of water. It is computed by multiplying the concentration in milligrams per liter by 0.00136.

Tons per day is the quantity of substance in solution or suspension that passes a stream section during a 24-hour day.

Total load (tons) is the total quantity of any individual constituent, as measured by dry mass or volume, that is in a specific amount of water (discharge) during a given time. It is computed by multiplying the total discharge times the milligrams per liter of the constituent, times the factor 0.0027, times the number of days.

Weighted average is used in this report to indicate discharge-weighted average and is computed by multiplying the discharge for a sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the sum of the discharges. A discharge-weighted average approximates the composition of water that would be found in a reservoir containing all the water passing a given location during the water year after thorough mixing in the reservoir.

WDR is used as an abbreviation for water-resources data in the REVISED RECORDS paragraph to refer to State annual water-data reports published before 1975.

WSP is used as an abbreviation for "Water-Supply Paper" in references to previously published reports.

DOWNSTREAM ORDER AND STATION NUMBER

Since October 1, 1950, the order of listing hydrologic-station records in Survey reports is in a downstream direction along the main stream. All stations on a tributary entering upstream from a main-stream station are listed before that station. A station on a tributary that enters between two main-stream stations is listed between them. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. The rank of any tributary on which a station is situated with respect to the stream to which it is immediately tributary is indicated by an indention in a list of gaging stations in the front of the report. Each indention represents one rank. This downstream order and system of indention show which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated.

As an additional means of identification, each hydrologic station and partial-record station has been assigned a station number. These are in the same downstream order used in this report. In assigning station numbers, no distinction is made between partial-record stations and other stations; therefore, the station number for a partial-record station indicates downstream-order position in a list made up of both types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete 8-digit number for each station, such as 06884400, which appears just to the left of the station name, includes the 2-digit part number "06" plus the 6-digit downstream order number "884400."

NUMBERING SYSTEM FOR WELLS AND MISCELLANEOUS SITES

The 8-digit downstream order station numbers are not assigned to wells and miscellaneous sites where only random water-quality samples or discharge measurements are taken.

The well and miscellaneous site numbering system of the U.S. Geological Survey is based on the grid system of latitude and longitude. The system provides the geographic location of the well or miscellaneous site and a unique number for each site. The number consists of 15 digits. The first 6 digits denote the degrees, minutes, and seconds of latitude; the next 7 digits denote degrees, minutes, and seconds of longitude; and the last 2 digits (assigned sequentially) identify the wells or other sites within a 1-second grid. See figure 7 on page 25.

SPECIAL NETWORKS AND PROGRAMS

Hydrologic bench-mark station is one that provides hydrologic data for a basin in which the hydrologic regimen will likely be governed solely by natural conditions. Data collected at a bench-mark station may be used to separate effects of natural from manmade changes in other basins which have been developed and in which the physiography, climate, and geology are similar to those in the undeveloped bench-mark basin.

National Stream-Quality Accounting Network (NASQAN) is a data-collection network designed by the U.S. Geological Survey to meet many of the information demands of agencies or groups involved in national or regional water-quality planning and management. Both accounting and broad-scale monitoring objectives have been incorporated into the network design. Areal configuration of the network is based on river-basin accounting units (identified by 8-digit hydrologic-unit numbers) designated by the Office of Water Data Coordination in consultation with the Water Resources Council. Primary objectives of the network are (1) to depict areal variability of streamflow and water-quality conditions nationwide on a year-by-year basis and (2) to detect and assess long-term changes in streamflow and stream quality.

Pesticide program is a network of regularly sampled water-quality stations where samples are collected to determine the concentration and distribution of pesticides in streams where potential contamination could result from the application of the commonly used insecticides and herbicides. Operation of the network is a Federal interagency activity.

Radiochemical program is a network of regularly sampled water-quality stations where samples are collected to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States.

EXPLANATION OF STAGE AND WATER-DISCHARGE RECORDS

Collection and Computation of Data

The base data collected at gaging stations consist of records of stage and measurements of discharge of streams or canals and stage, surface area, and contents of lakes or reservoirs. In addition, observations of factors affecting the stage-discharge relation or the stage-capacity relation, weather records, and other information are used to supplement base data in determining the daily flow or volume of water in storage. Records of stage are obtained from either direct readings on a nonrecording gage or from a water-stage recorder that gives either a continuous graph of the fluctuations or a tape punched at selected time intervals. Measurements of discharge are made with a current meter, using the general methods adopted by the U.S. Geological Survey. These methods are described in standard textbooks, in Water-Supply Paper 888, and in U.S. Geological Survey Techniques of Water-Resources Investigations, Book 3, Chapter A6.

For stream-gaging stations, rating tables giving the discharge for any stage are prepared from stage-discharge relation curves. If extensions to the rating curves are necessary to express discharge greater than measured, they are made on the basis of indirect measurements of peak discharge (such as slope-area or contracted-opening measurements and computation of flow over dams or weirs), step-backwater techniques, velocity-area studies, and logarithmic plotting. The daily mean discharge is computed from gage heights and rating tables; then the monthly and yearly mean discharge are computed from the daily figures. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is computed by the shifting-control method, in which correction factors based on individual discharge measurements and notes by engineers and observers are used in applying the gage heights to the rating tables. If the stage-discharge relation for a station is temporarily changed by the presence of aquatic growth or debris on the control, the daily mean discharge is computed by what is basically the shifting-control method.

At some stream-gaging stations the stage-discharge relation is affected by backwater from reservoirs, tributary streams, or other sources. This necessitates the use of the slope method, in which the slope or fall in a reach of the stream is a factor in computing discharge. The slope or fall is obtained by means of an auxiliary gage set at some distance from the base gage. At some stations the stage-discharge relation is affected by changing stage; at these stations the rate of change in stage is used as a factor in computing discharge.

At some stream-gaging stations the stage-discharge relation is affected by ice in the winter, and it becomes impossible to compute the discharge in the usual manner. Discharge for periods of ice effect is computed on the basis of the gage-height record and occasional winter discharge measurements. Consideration is given to the available information on temperature and precipitation, notes by gage observers and hydrologists, and comparable records of discharge for other stations in the same or nearby basins.

For a lake or reservoir station, capacity tables giving the contents for any stage are prepared from stage-area relation curves defined by surveys. The application of the stage to the capacity table gives the contents from which the daily, monthly, or yearly change in contents is computed.

If the stage-capacity curve is subject to changes because of deposition of sediment in the reservoir, periodic resurveys of the reservoir are necessary to define new stage-capacity curves. During the period between reservoir surveys the computed contents may be increasingly in error due to the gradual accumulation of sediment.

For some gaging stations there are periods when no gage-height record is obtained or the recorded gage height is so faulty that it cannot be used to compute daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods the daily discharges are estimated on the basis of recorded range in stage, prior and subsequent records, discharge measurements, weather records, and comparison with records for other stations in the same or nearby basins. Likewise, daily contents may be estimated on the basis of operator's log, prior and subsequent records, inflow-outflow studies, and other information.

The data in this report generally comprise a description of the station and tabulations of daily and monthly figures. For gaging stations on streams or canals a table showing the daily discharge and monthly and yearly discharge is given. For gaging stations on lakes and reservoirs a table showing the daily elevations is given. Records are published for the water year, which begins on October 1 and ends on September 30.

The description of the gaging station gives the location, drainage area, period of record, notations of revisions of previously published records, type and history of gages, general remarks, average discharge, and extremes of discharge or contents. The location of the gaging station and the drainage area are obtained from the most accurate maps available. River mileage, given under "LOCATION" for some stations, is that determined and used by the Corps of Engineers or other agencies. Periods for which there are published records for the present station or for stations generally equivalent to the present one are given under "PERIOD OF RECORD."

Previously published streamflow records of some stations have been found to be in error on the basis of data or information later obtained. Revisions of such records are usually published along with the current records in one of the annual or compilation reports. In order to make it easier to find such revised records, a paragraph headed "REVISED RECORDS" has been added to the description of all stations for which revised records have been published. Listed therein are all the reports in which revisions have been published, each followed by the water years for which figures are revised in that report. In listing the water years only one number is given; for instance, 1965 stands for the water year October 1, 1964, to September 30, 1965. If no daily, monthly, or annual figures of discharge are affected by the revision, the fact is brought out by notations after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only peak discharges were revised. If the drainage area has been revised, the report in which the revised figure was first published is given.

The type of gage currently in use, the datum of the present gage referred to National Geodetic Vertical Datum of 1929, and a condensed history of the types, locations, and datums of previous gages used during the period of record are given under "GAGE." National Geodetic Vertical Datum of 1929 is explained in "DEFINITION OF TERMS" on page 4.

Information pertaining to the accuracy of the discharge records and to conditions which affect the natural flow of the gaging station is given under "REMARKS." For reservoir stations information on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir is given under "REMARKS."

The average discharge for the number of years indicated is given under "AVERAGE DISCHARGE"; it is not given for stations having fewer than 5 complete years of record or for stations where changes in water development during the period of record cause the figure to have little significance. Under "EXTREMES" are given: first, the extremes for the period of record; second, information available outside the period of record; and last, those for the current year. Unless otherwise qualified, the maximum discharge (or contents) is the instantaneous maximum corresponding to the crest stage obtained by use of a water-stage recorder (graphic or digital), a crest-stage gage, or a nonrecording gage read at the time of the crest. If the maximum gage height did not occur on the same day as the maximum discharge (or contents), it is given separately. Similarly, the minimum is the instantaneous minimum unless otherwise qualified. For some stations peak discharges are listed with "EXTREMES FOR THE CURRENT YEAR"; if they are, all independent peaks, including the maximum for the year, above the selected base with the time of occurrence and corresponding gage heights are published in tabular format. The base discharge, which is given in the table heading, is selected so that an average of about three peaks a year will be presented. Peak discharges are given for some stations which are partially regulated and shown as "Peak discharge above regulated base." Peak discharges are not published for any canals, ditches, drains, or for any stream for which the peaks are subjected to complete control by man. Time of day is expressed in 24-hour local standard time. For example, 12:30 a.m. is 0030; 1:30 p.m. is 1330. The minimums for these stations are published in a separate paragraph following the table of peaks.

The daily table for stream-gaging stations gives the mean discharge for each day and is followed by monthly and yearly summaries. In the monthly summary below the daily table, the line headed "TOTAL" gives the sum of the daily figures. The line headed "MEAN" gives the average flow in cubic feet per second during the month. The lines headed "MAX" and "MIN" give the maximum and minimum daily discharges, respectively, for the month. In the yearly summary below the monthly summary, the figures shown are the appropriate daily discharges for the calendar and water years.

Footnotes to the table of daily discharge are introduced by the word "NOTE." Footnotes are used to indicate periods for which the discharge is computed or estimated by special methods because of no gage-height record, backwater from various sources, or other unusual conditions. Periods of no gage-height record are indicated if the period is continuous for a month or more or includes the maximum discharge for the year. Periods of backwater from an unusual source, of indefinite stage-discharge relation, or of any other unusual condition at the gage site are indicated only if they are a month or more in length and the accuracy of the records is affected. Days on which the stage-discharge relation is affected by ice are not indicated. The methods used in computing discharge for various unusual conditions have been explained in preceding paragraphs.

For all gaging stations on lakes and reservoirs the data presented comprise a description of the station and a table showing daily elevation. A skeleton table of capacity at given stages is published for all reservoirs.

Data collected at partial-record stations follow the information for continuous-record sites. Data for partial-record discharge stations are presented in two tables. The first is a table of annual maximum stage and discharge at crest-stage stations; and the second is a listing of instantaneous gage heights and discharges for flood-hydrograph stations. Occasionally, a series of discharge measurements are made within a short time period to investigate the seepage gains or losses along a reach of a stream or to determine the low-flow characteristics of an area. Such measurements are given in special tables following the tables of partial-record stations.

Accuracy of Field Data and Computed Results

The accuracy of streamflow data depends primarily on (1) the stability of the stage-discharge relation or, if the control is unstable, the frequency of discharge measurements and (2) the accuracy of observations of stage, measurements of discharge, and interpretations of records.

The station description under "REMARKS" states the degree of accuracy of the records. "Excellent" means that about 95 percent of the daily discharges are within 5 percent; "good," within 10 percent; and "fair," within 15 percent. "Poor" means that daily discharges have less than "fair" accuracy.

Figures of daily mean discharge in this report are shown to the nearest hundredth of a cubic foot per second for discharges of less than 1 ft^3/s; to tenths between 1.0 and 10 ft^3/s; to whole numbers between 10 and 1,000 ft^3/s; and to three significant figures above 1,000 ft^3/s. The number of significant figures used is based solely on the magnitude of the figure. The same rounding rules apply to discharge figures listed for partial-record stations.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes, or to other factors. For this reason, figures of cubic feet per second per square mile and of runoff in inches are not published. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless it is so stated.

Other Data Available

Information of a more detailed nature than that published for most of the gaging stations, such as discharge measurements, gage-height records, and rating tables, is on file in the Kansas District office. Also, most gaging-station records are available in computer-usable form and many statistical analyses have been made.

Precipitation data that is collected by the U.S. Geological Survey and State agencies are not published in the present report. The Kansas District operated many digital recorders (5- or 15-minute-punch intervals) to collect rainfall data. The sites operated during the 1979 water year are shown in table 3 (see page 27). Locations of rainfall stations, 1979 water year, are shown in figure 8 (see page 25).

Information on the availability of unpublished data or statistical analyses may be obtained from the District office.

EXPLANATION OF WATER-QUALITY RECORDS

Collection and Examination of Data

Surface-water samples for analyses usually are collected at or near gaging stations. The water-quality records are given immediately following the discharge records at these stations.

The descriptive heading for water-quality records gives the period of record for all water-quality data, the period of daily record for parameters that are measured on a daily basis (specific conductance, chloride, water temperature), extremes for the period of daily record, extremes for the current year, and general remarks.

For ground-water-quality records, no descriptive statements are given; however, the well number, depth of well, date of sampling, and other pertinent data are given in the table containing the chemical analyses of the ground water.

Water Analysis

Most methods for collecting and analyzing water samples are described in the U.S. Geological Survey Techniques of Water-Resources Investigations listed on page 29.

One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled through several vertical sections to obtain a representative sample needed for an accurate mean concentration and for calculating load.

Water-quality data published in this report are considered to be the most representative values available for the stations listed. The values reported represent water-quality conditions at the time of sampling as much as possible and are consistent with available sampling techniques and methods of analysis. In the rare case where an apparent inconsistency exists between a reported pH value and the relative abundance of carbon dioxide species (carbonate and bicarbonate), the inconsistency is the result of a slight uptake of carbon dioxide from the air by the sample between measurement of pH in the field and determination of carbonate and bicarbonate in the laboratory.

For stations where specific conductances are taken manually once daily, the samples are collected at about the same time each day.

For water-quality stations equipped with digital monitors, the records consist of daily mean values for specific conductance and are based upon hourly punches beginning at 0100 hours and ending at 2400 hours for the day of record. More detailed records (hourly values) may be obtained from the District office.

Water Temperatures

Water temperatures are measured at all of the water-quality stations. In addition, water temperatures are taken at time of discharge measurements for water-discharge stations. Conversions of degrees Celsius to degrees Fahrenheit are shown in table 4 (see page 27). For stations where water temperatures are taken manually once daily, the water temperatures are taken about the same time each day. At stations equipped with digital monitors, the records consist of daily mean temperatures and are based on hourly punches. Large streams have a small daily temperature change; shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges.

Sediment

Suspended-sediment concentrations are determined from samples collected by using depth-integrating samplers. Samples usually are obtained at several verticals in the cross section.

Although data collected periodically may represent conditions only at the time of observations, such data are useful in establishing seasonal relations between water quality and streamflow and for predicting long-term sediment-discharge characteristics of the stream. Specific-conductance values represent the transport medium at time of analysis, and these values may vary from those at time of sampling.

In addition to the records of the quantities of suspended sediment, records of the periodic determination of the particle-size distribution of suspended sediment and bed material are included.

EXPLANATION OF GROUND-WATER-LEVEL RECORDS

Collection of Data

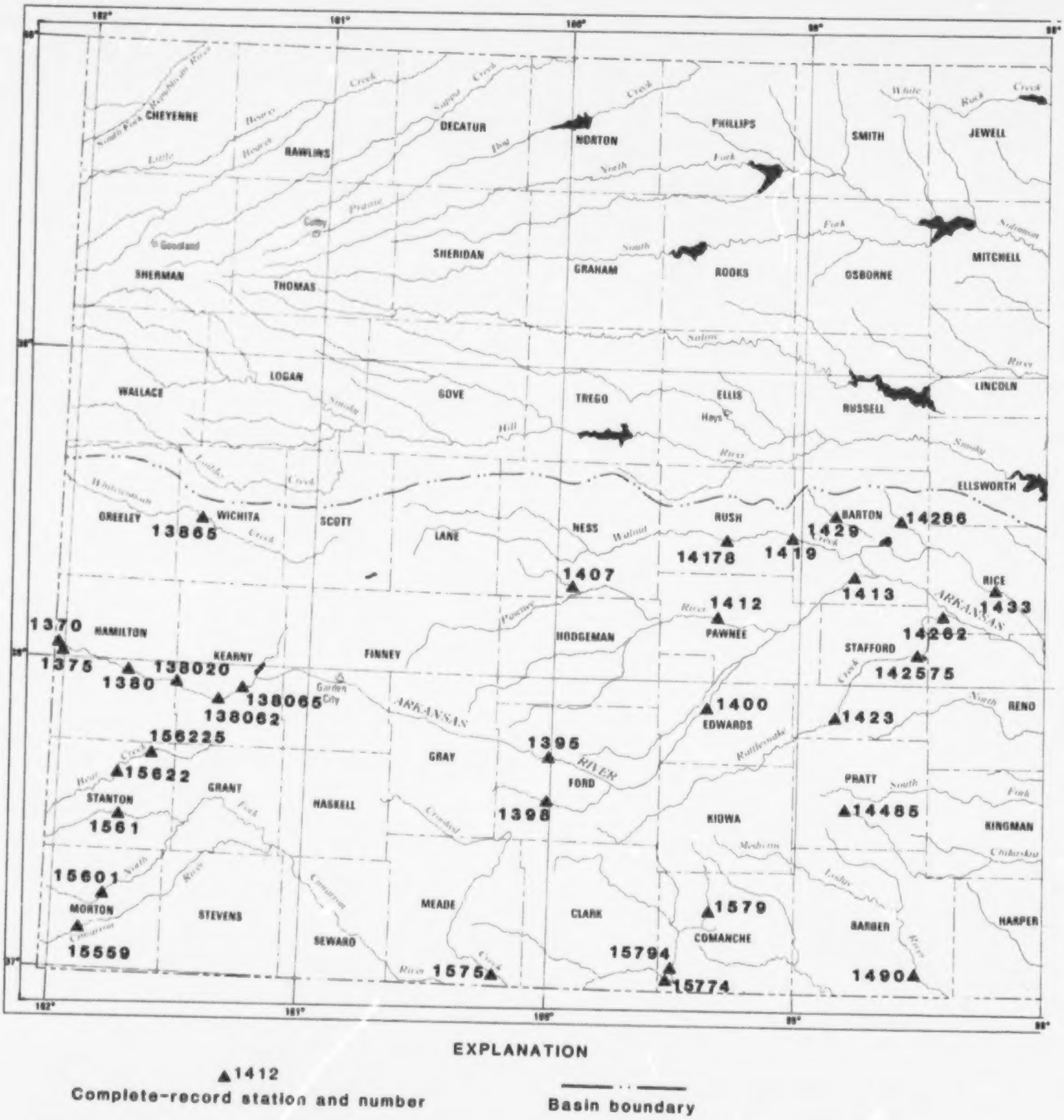
Only ground-water-level data from a basic network of observation wells are published herein. This basic network contains observation wells so located that the most significant data are obtained from the fewest wells in the most important aquifers.

Each well is identified by means of (1) a 15-digit number that is based on latitude and longitude and (2) a local number that is provided for local needs. See figure 7 on page 25.

Measurements are made in many types of wells, under varying conditions of access, and at different temperatures; hence, neither the method of measurement nor the equipment can be standardized. At each observation well, however, the equipment and techniques used are those that will ensure that measurements at each well are consistent.

Water-level measurements in this report are given in feet with reference to land-surface datum (LSD), which is a datum plane that is approximately at land surface at each well. If known, the altitude of the land-surface datum above mean sea level is given in the well description. The height of the measuring point (MP) above or below land-surface datum is given in each well description. Water levels in wells equipped with recording gages are reported for every fifth day and the end of each month (EOM).

Water levels are reported to as many significant figures as can be justified by the local conditions. For example, in a measurement of a depth to water of several hundred feet, the error in determining the absolute value of the total depth to water may be a few tenths of a foot, whereas the error in determining the net change of water level between successive measurements may be only a hundredth or a few hundredths of a foot. For lesser depths to water, the accuracy is greater. Accordingly, most measurements are reported to a hundredth of a foot, but some are given only to a tenth of a foot or a larger unit.


102°
101°
100°
99°
98°
40°
39°
38°
37°
CHEYENNE
RAWLINS
DECATUR
NORTON
PHILLIPS
SMITH
JEWELL
SHERMAN
THOMAS
SHERIDAN
GRAHAM
ROOKS
OSBORNE
MITCHELL
WALLACE
LOGAN
GOVE
TREGO
ELLIS
RUSSELL
LINCOLN
ELLSWORTH
GREELEY
WICHITA
SCOTT
LANE
NESS
RUSH
BARTON
RICE
HAMILTON
KEARNY
FINNEY
HODGEMAN
PAWNEE
STAFFORD
RENO
STANTON
GRANT
HASKELL
GRAY
FORD
EDWARDS
PRATT
KINGMAN
KIOWA
MORTON
STEVENS
SEWARD
MEADE
CLARK
COMANCHE
BARBER
HARPER
Goodland
Colby
Hays
Garden City
ARKANSAS RIVER
Smoky Hill River
Saline River
Solomon River
Walnut Creek
Pawnee River
Cimarron River
13865
14286
1429
1419
14178
1407
1413
1433
1412
14262
142575
1370
1375
1380
138020
138065
138062
1400
1423
156225
15622
1395
1561
1398
14485
15601
1579
15559
1575
15794
15774
1490
EXPLANATION
▲1412
Complete-record station and number
Basin boundary

NOTE: numbers shown are abbreviated versions of the complete numbers given in text

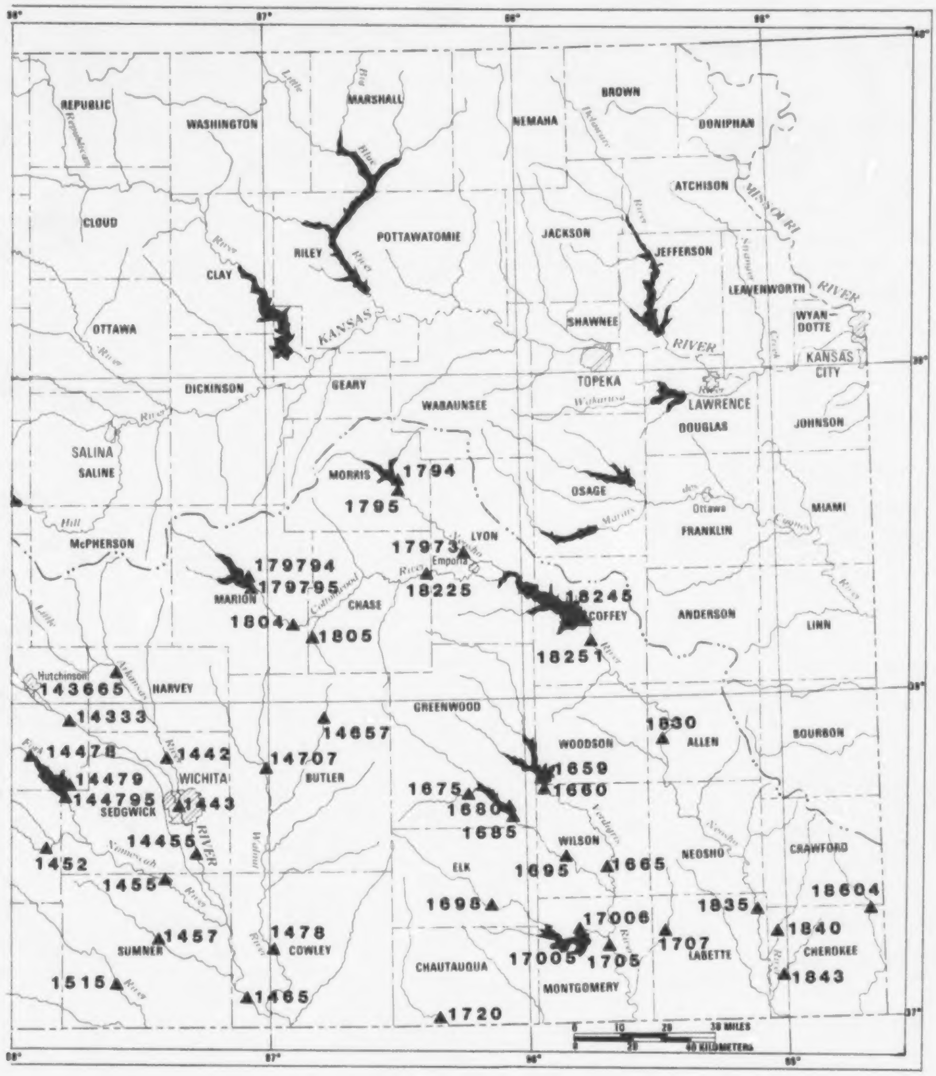
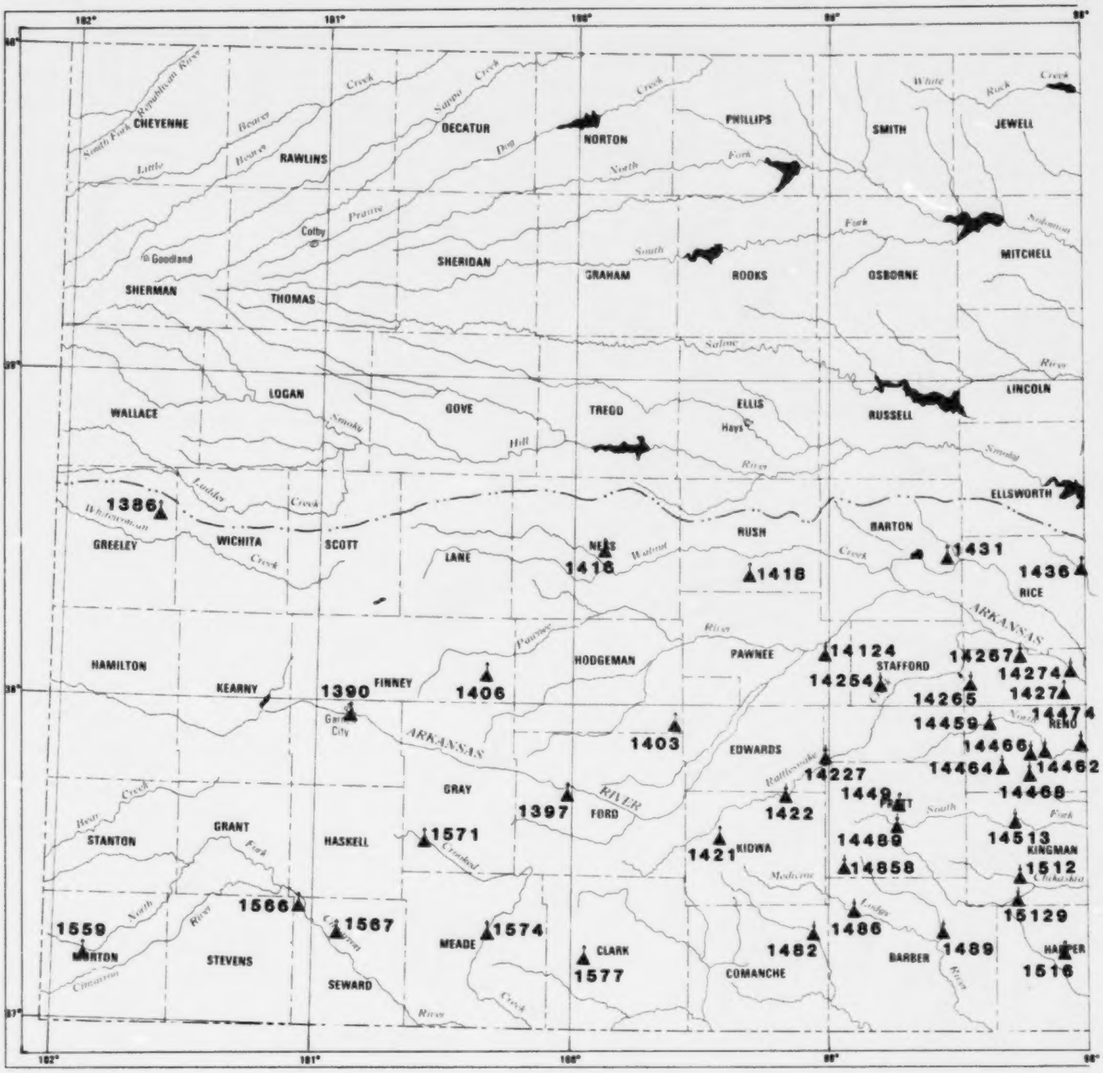

98°
97°
96°
95°
40°
39°
38°
37°
REPUBLIC
Republican
WASHINGTON
Little
Big
MARSHALL
Blue
NEMAHA
BROWN
Delaware
DONIPHAN
CLOUD
CLAY
River
RILEY
River
POTTAWATOMIE
JACKSON
River
ATCHISON
MISSOURI
JEFFERSON
Stranger
LEAVENWORTH
RIVER
WYAN-
DOTTE
KANSAS
CITY
OTTAWA
River
KANSAS
SHAWNEE
RIVER
Creek
TOPEKA
Wakarusa
River
LAWRENCE
DOUGLAS
JOHNSON
DICKINSON
GEARY
WABAUNSEE
River
SALINA
SALINE
MORRIS
1794
1795
OSAGE
Marais
des
Ottawa
FRANKLIN
MIAMI
Cygnes
Hill
McPHERSON
LYON
17973
Neosho
Emporia
River
18225
179794
179795
MARION
Cottonwood
CHASE
1804
1805
18245
COFFEY
18251
River
ANDERSON
LINN
River
Little
Hutchinson
143665
Arkansas
HARVEY
GREENWOOD
14333
14657
1830
ALLEN
WOODSON
BOURBON
Fork
14478
1442
River
14707
14479
WICHITA
BUTLER
1659
1660
144795
SEDGWICK
1443
1675
1680
1685
Verdigris
14455
RIVER
Walnut
WILSON
Neosho
CRAWFORD
1452
Ninnescah
ELK
1695
1665
NEOSHO
1455
River
1698
17006
1835
18604
1478
1457
River
COWLEY
1707
1840
SUMNER
CHAUTAUQUA
17005
1705
River
LABETTE
CHEROKEE
River
1515
River
1843
1465
MONTGOMERY
1720
0
10
20
30 MILES
0
20
40 KILOMETERS

Figure 1.--Map of Kansas showing location of complete-record surface-water gaging stations in the Arkansas River basin, 1979 water year.


102°
101°
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99°
98°
40°
39°
38°
37°
CHEYENNE
RAWLINS
DECATUR
NORTON
PHILLIPS
SMITH
JEWELL
SHERMAN
THOMAS
SHERIDAN
GRAHAM
ROOKS
OSBORNE
MITCHELL
WALLACE
LOGAN
GOVE
TREGO
ELLIS
RUSSELL
LINCOLN
ELLSWORTH
GREELEY
WICHITA
SCOTT
LANE
NESS
RUSH
BARTON
RICE
HAMILTON
KEARNY
FINNEY
HODGEMAN
PAWNEE
STAFFORD
RENO
EDWARDS
GRAY
FORD
STANTON
GRANT
HASKELL
KIOWA
PRATT
KINGMAN
MORTON
STEVENS
SEWARD
MEADE
CLARK
COMANCHE
BARBER
HARPER
Goodland
Colby
Hays
Garden City
South Fork Republican River
Beaver
Little Beaver
Sappa Creek
Prairie Dog Creek
North Fork
South Fork
Solomon
White Rock Creek
Saline River
Smoky Hill River
Ladder Creek
Whitewoman
Walnut Creek
Pawnee River
ARKANSAS RIVER
Bear Creek
North Fork
Cimarron River
Crooked Creek
Rattlesnake
Medicine Lodge River
South Fork
Chikaskia
1386
1416
1418
1431
1436
14124
14254
14257
14274
14265
1427
14474
14459
14466
14464
14462
14468
1390
1406
1403
14227
1422
1449
1397
14489
14858
1421
14513
1512
1571
1566
1567
1559
1574
1577
1482
1486
1489
15129
1516

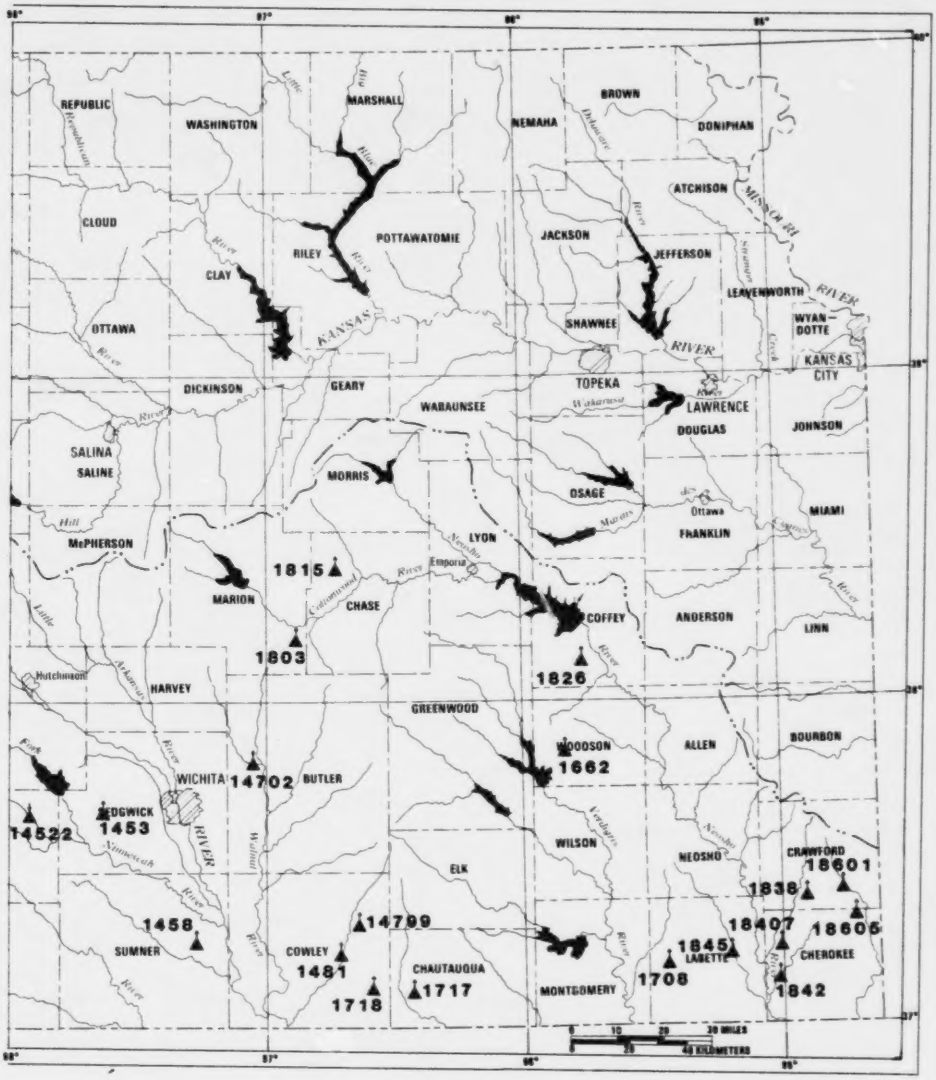
EXPLANATION

▲1453
Crest-stage station and number

▲1422
Low-flow station and number

—— · · ——
Basin boundary

NOTE: numbers shown are abbreviated versions of the complete numbers given in text



98°
97°
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39°
38°
37°
REPUBLIC
WASHINGTON
MARSHALL
NEMAHA
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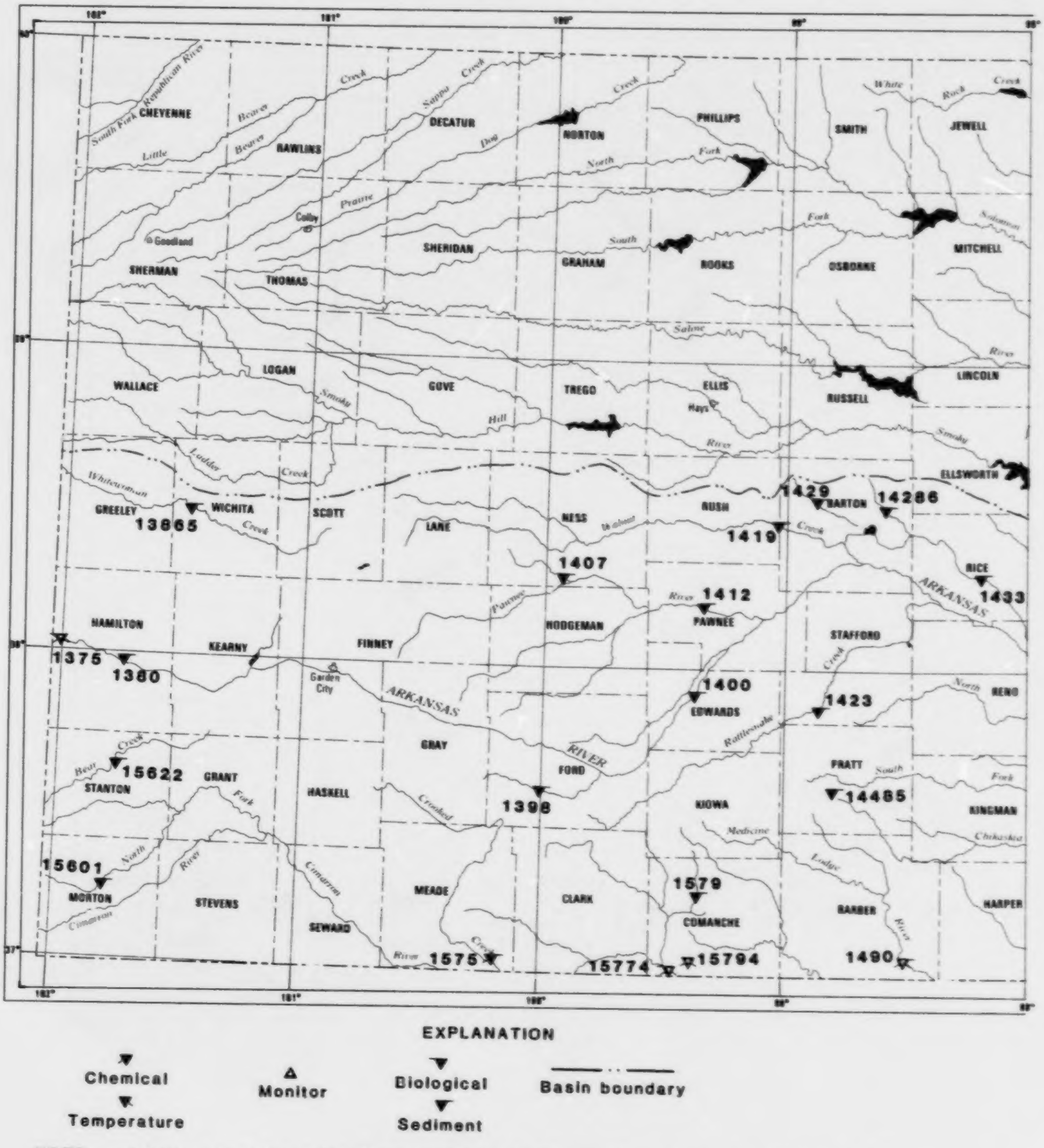
DONIPHAN
ATCHISON
CLOUD
CLAY
RILEY
POTTAWATOMIE
JACKSON
JEFFERSON
LEAVENWORTH
WYANDOTTE
KANSAS CITY
OTTAWA
DICKINSON
GEARY
WABAUNSEE
SHAWNEE
TOPEKA
LAWRENCE
DOUGLAS
JOHNSON
SALINA
SALINE
MORRIS
OSAGE
Ottawa
FRANKLIN
MIAMI
McPHERSON
LYON
Emporia
MARION
CHASE
COFFEY
ANDERSON
LINN
Hutchinson
HARVEY
GREENWOOD
WOODSON
ALLEN
BOURBON
WICHITA
BUTLER
SEDGWICK
WILSON
NEOSHO
CRAWFORD
ELK
SUMNER
COWLEY
CHAUTAUQUA
MONTGOMERY
LABETTE
CHEROKEE
KANSAS
RIVER
MISSOURI RIVER
1815
1803
1826
14702
1662
14522
1453
1458
14799
1481
1718
1717
1708
1845
1838
18601
18407
18605
1842
0 10 20 30 MILES
0 20 40 KILOMETERS

Figure 2.--Map of Kansas showing location of partial-record surface-water gaging stations in the Arkansas River basin, 1979 water year.


102°
101°
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CHEYENNE
RAWLINS
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SMITH
JEWELL
SHERMAN
Goodland
THOMAS
Colby
SHERIDAN
GRAHAM
ROOKS
OSBORNE
MITCHELL
WALLACE
LOGAN
GOVE
TREGO
ELLIS
Hays
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ELLSWORTH
GREELEY
WICHITA
SCOTT
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RUSH
BARTON
RICE
HAMILTON
KEARNY
FINNEY
Garden City
HODGEMAN
PAWNEE
STAFFORD
RENO
GRAY
FORD
EDWARDS
PRATT
KINGMAN
STANTON
GRANT
HASKELL
KIOWA
MORTON
STEVENS
SEWARD
MEADE
CLARK
COMANCHE
BARBER
HARPER
South Fork Republican River
Little
Beaver
Creek
Sappa Creek
Prairie
Dog
North
Fork
South
Solomon
White
Rock
Saline
River
Smoky
Hill
Ladder
Whitewoman
Walnut
Pawnee
ARKANSAS
RIVER
Rattlesnake
Bear
North
Cimarron
Crooked
Medicine
Lodge
Chikaskia
13865
1429
14286
1419
1407
1412
1433
1375
1380
1400
1423
15622
1398
14485
15601
1579
1575
15774
15794
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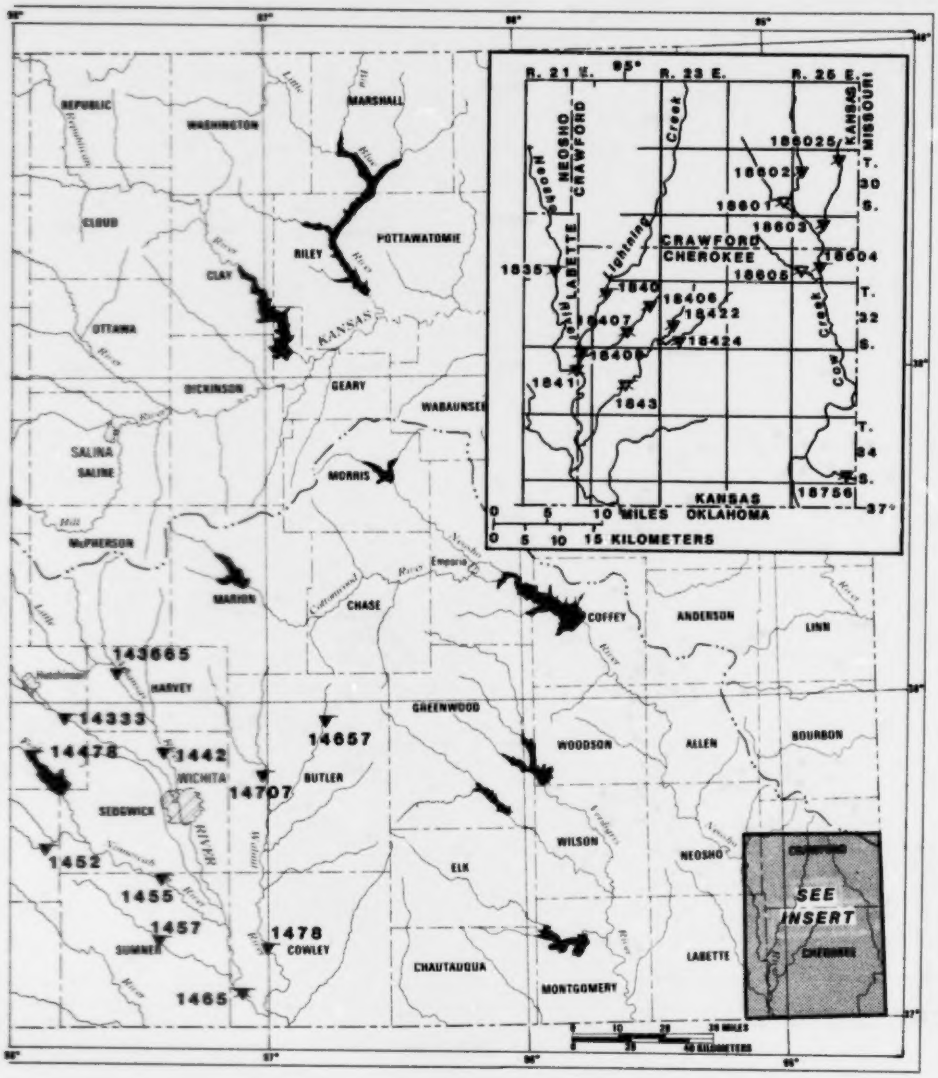
EXPLANATION
Chemical
Temperature
Monitor
Biological
Sediment
Basin boundary

NOTE: numbers shown are abbreviated versions of the complete numbers given in text


R. 21 E.
95°
R. 23 E.
R. 25 E.
NEOSHO
CRAWFORD
KANSAS
MISSOURI
Creek
Neosho
Lightning
LABETTE
CRAWFORD
CHEROKEE
186025
18602
18601
18603
18604
18605
1835
1840
18406
18407
18422
18424
18409
1841
1843
18756
T. 30 S.
T. 32 S.
T. 34 S.
Cow Creek
KANSAS
OKLAHOMA
37°
0 5 10 MILES
0 5 10 15 KILOMETERS
REPUBLIC
WASHINGTON
MARSHALL
CLOUD
RILEY
POTTAWATOMIE
CLAY
OTTAWA
KANSAS
DICKINSON
GEARY
WABAUNSEE
SALINA
SALINE
MORRIS
McPHERSON
MARION
CHASE
Emporia
COFFEY
ANDERSON
LINN
143665
HARVEY
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14478
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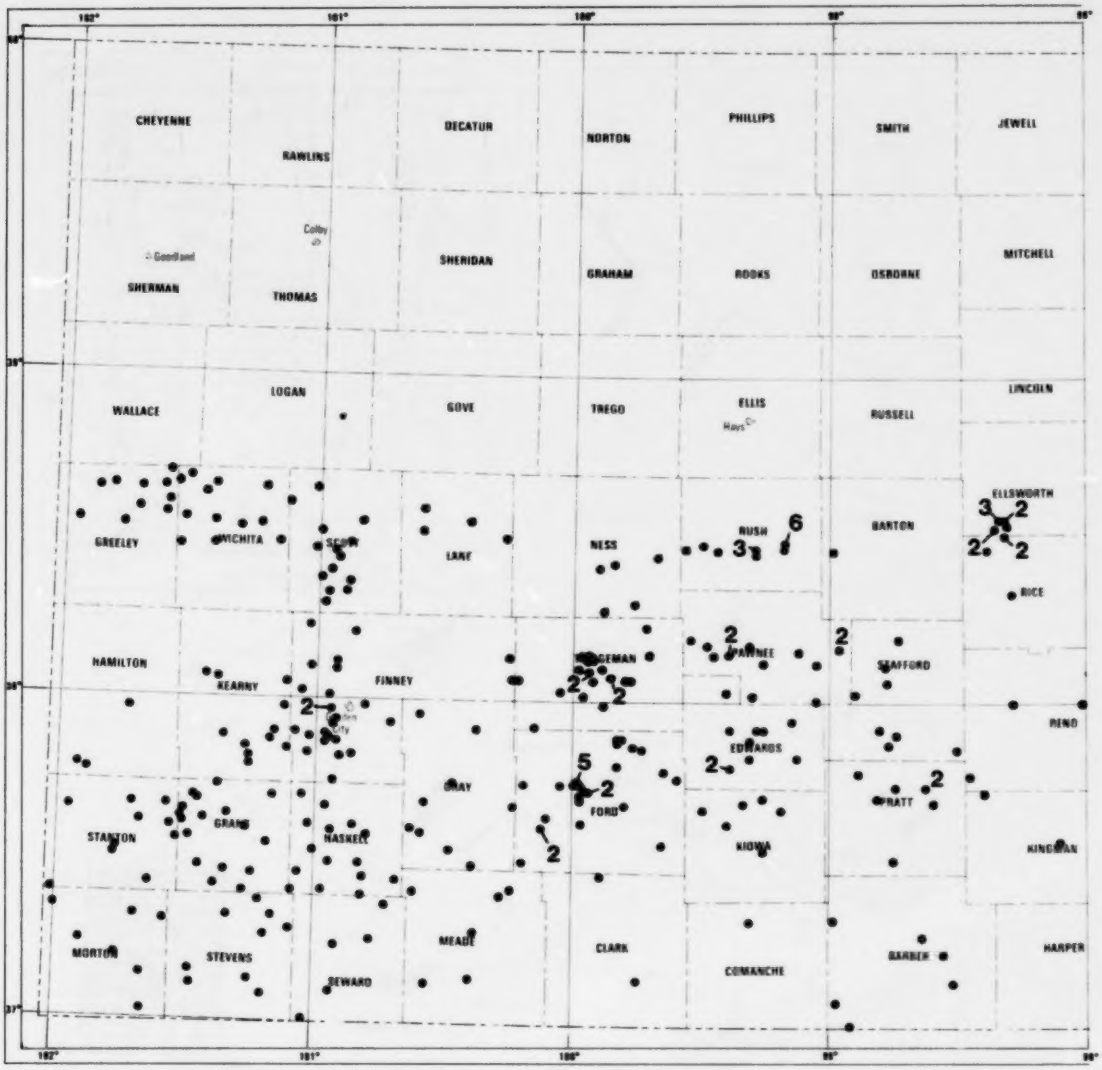
WICHITA
14707
14657
BUTLER
GREENWOOD
WOODSON
ALLEN
BOURBON
SEDGWICK
RIVER
1452
1455
1457
SUMNER
1478
COWLEY
1465
ELK
WILSON
NEOSHO
CHAUTAUQUA
MONTGOMERY
LABETTE
SEE INSERT
0 10 20 30 MILES
0 20 40 KILOMETERS

Figure 3.--Map of Kansas showing location of surface-water-quality stations in the Arkansas River basin, 1979 water year.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Goodland
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SHERMAN
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SHERIDAN
GRAHAM
ROOKS
OSBORNE
MITCHELL
WALLACE
LOGAN
GOVE
TREGO
ELLIS
Hays
RUSSELL
LINCOLN
ELLSWORTH
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BARTON
RICE
HAMILTON
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FINNEY
HODGEMAN
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STAFFORD
RENO
Garden City
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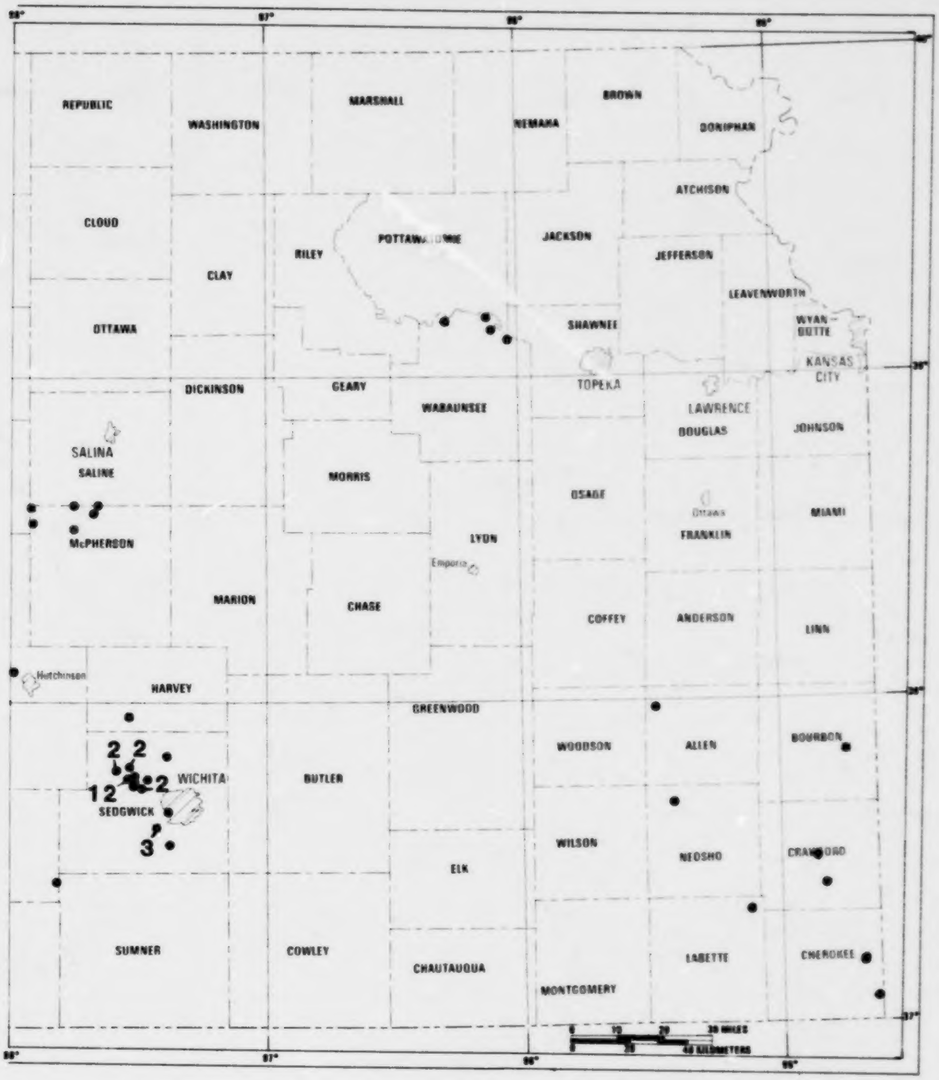
EDWARDS
STANTON
GRANT
HASKELL
FORD
KIOWA
PRATT
KINGMAN
MORTON
STEVENS
SEWARD
MEADE
CLARK
COMANCHE
BARBER
HARPER
2
3
5
6

EXPLANATION

● 2

Observation well

Number indicates more than one well at this site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LEAVENWORTH
OTTAWA
SHAWNEE
WYANDOTTE
KANSAS CITY
DICKINSON
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WABAUNSEE
TOPEKA
LAWRENCE
DOUGLAS
JOHNSON
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MORRIS
OSAGE
Ottawa
FRANKLIN
MIAMI
McPHERSON
LYON
Emporia
MARION
CHASE
COFFEY
ANDERSON
LINN
Hutchinson
HARVEY
GREENWOOD
WOODSON
ALLEN
BOURBON
2
2
WICHITA
BUTLER
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2
2
SEDGWICK
WILSON
NEOSHO
CRAWFORD
3
ELK
SUMNER
COWLEY
CHAUTAUQUA
LABETTE
CHEROKEE
MONTGOMERY
98°
97°
96°
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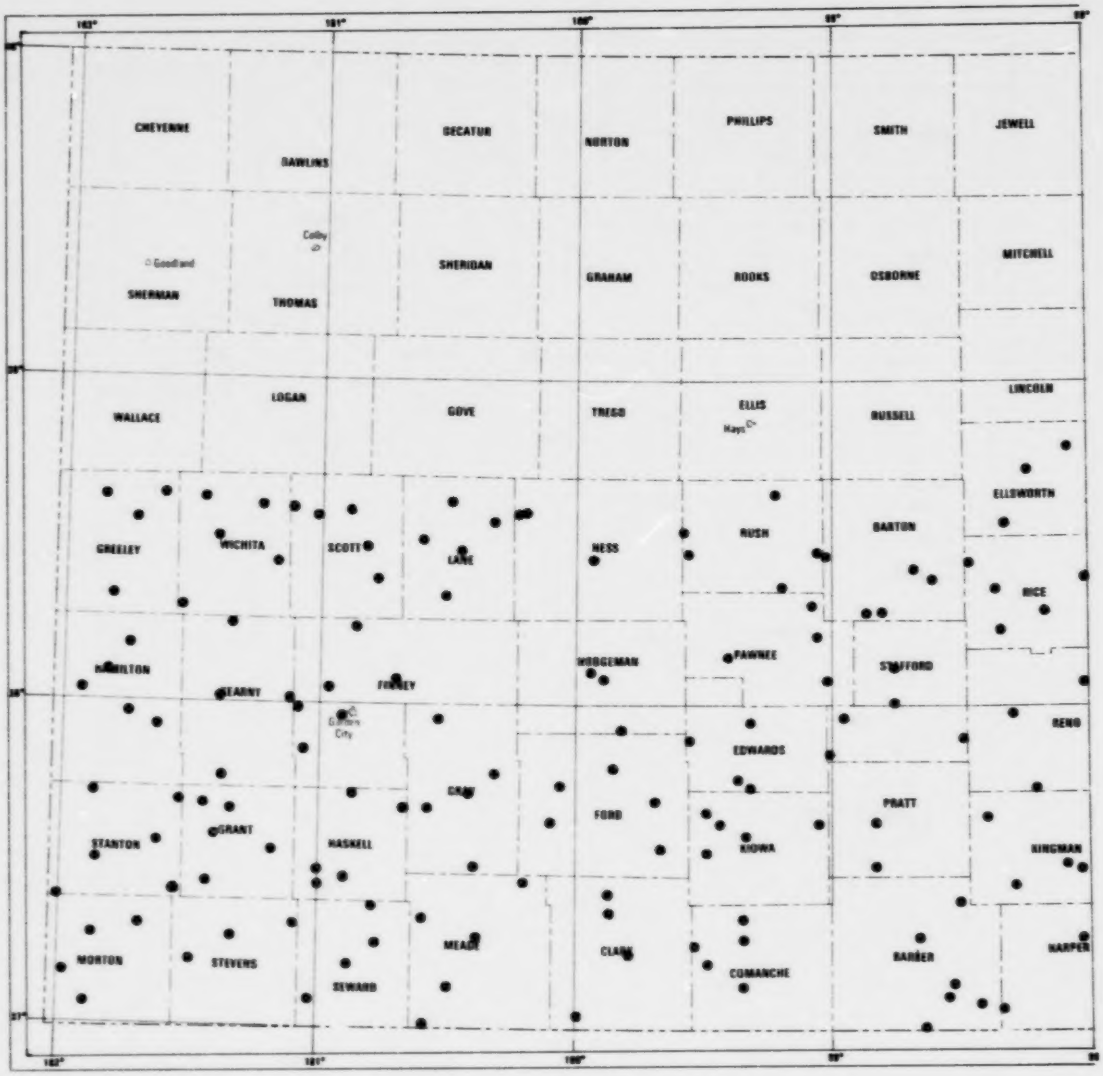
38°
37°
0 10 20 30 MILES
0 20 40 KILOMETERS

Figure 4.--Map of Kansas showing location of observation wells in the Arkansas River basin, 1979 water year.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LINCOLN
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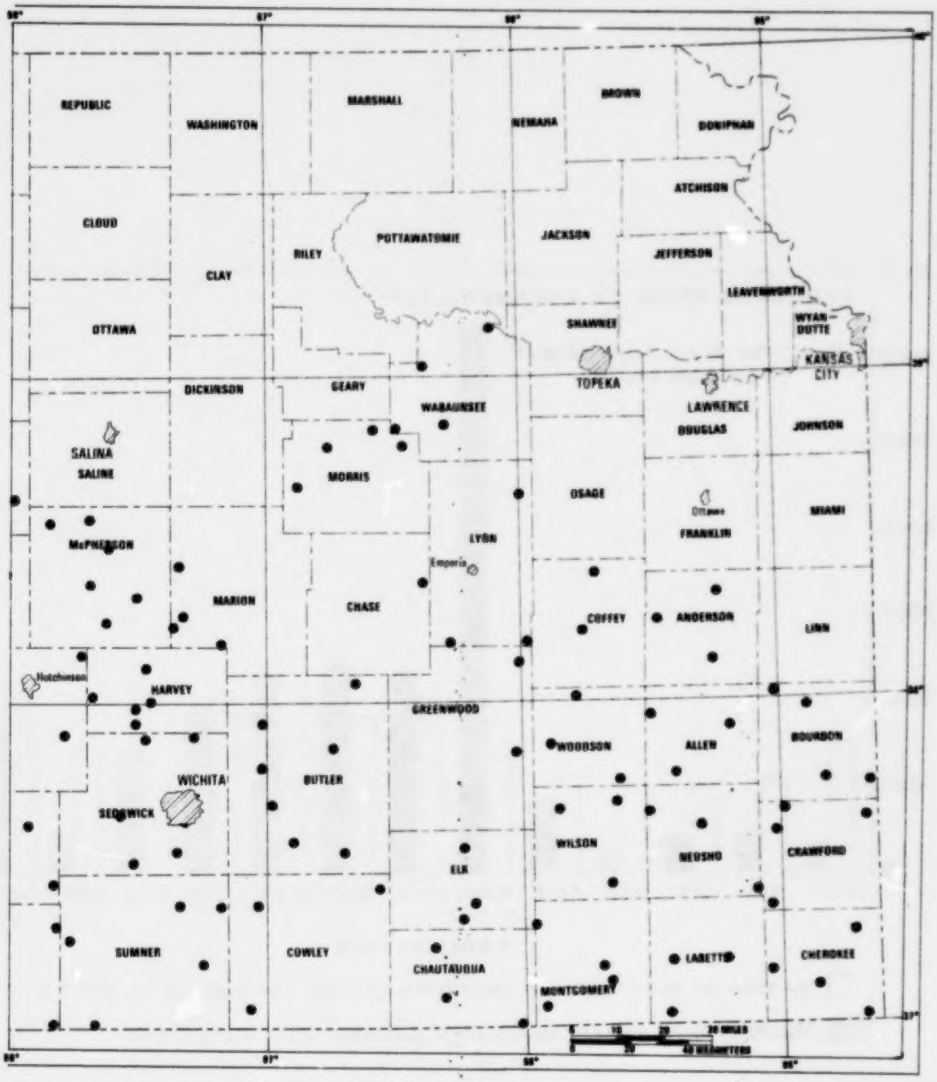
RICE
HAMILTON
KEARNY
FINNEY
HODGEMAN
PAWNEE
STAFFORD
Garden City
RENO
EDWARDS
GRAY
FORD
PRATT
STANTON
GRANT
HASKELL
KIOWA
KINGMAN
MORTON
STEVENS
SEWARD
MEADE
CLARK
COMANCHE
BARBER
HARPER

EXPLANATION

● Ground-water-quality station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DONIPHAN
CLOUD
CLAY
RILEY
POTTAWATOMIE
JACKSON
ATCHISON
JEFFERSON
LEAVENWORTH
OTTAWA
SHAWNEE
WYAN-DOTTE
KANSAS CITY
TOPEKA
LAWRENCE
DICKINSON
GEARY
WABAUNSEE
DOUGLAS
JOHNSON
SALINA
SALINE
MORRIS
OSAGE
Ottawa
FRANKLIN
MIAMI
LYON
McPHERSON
Emporia
MARION
CHASE
COFFEY
ANDERSON
LINN
Hutchinson
HARVEY
GREENWOOD
WOODSON
ALLEN
BOURBON
WICHITA
BUTLER
SEDGWICK
WILSON
NEOSHO
CRAWFORD
ELK
SUMNER
COWLEY
CHAUTAUQUA
MONTGOMERY
LABETTE
CHEROKEE
0 10 20 30 MILES
0 20 40 KILOMETERS

Figure 5.--Map of Kansas showing location of ground-water-quality stations in the Arkansas River basin, 1979 water year.

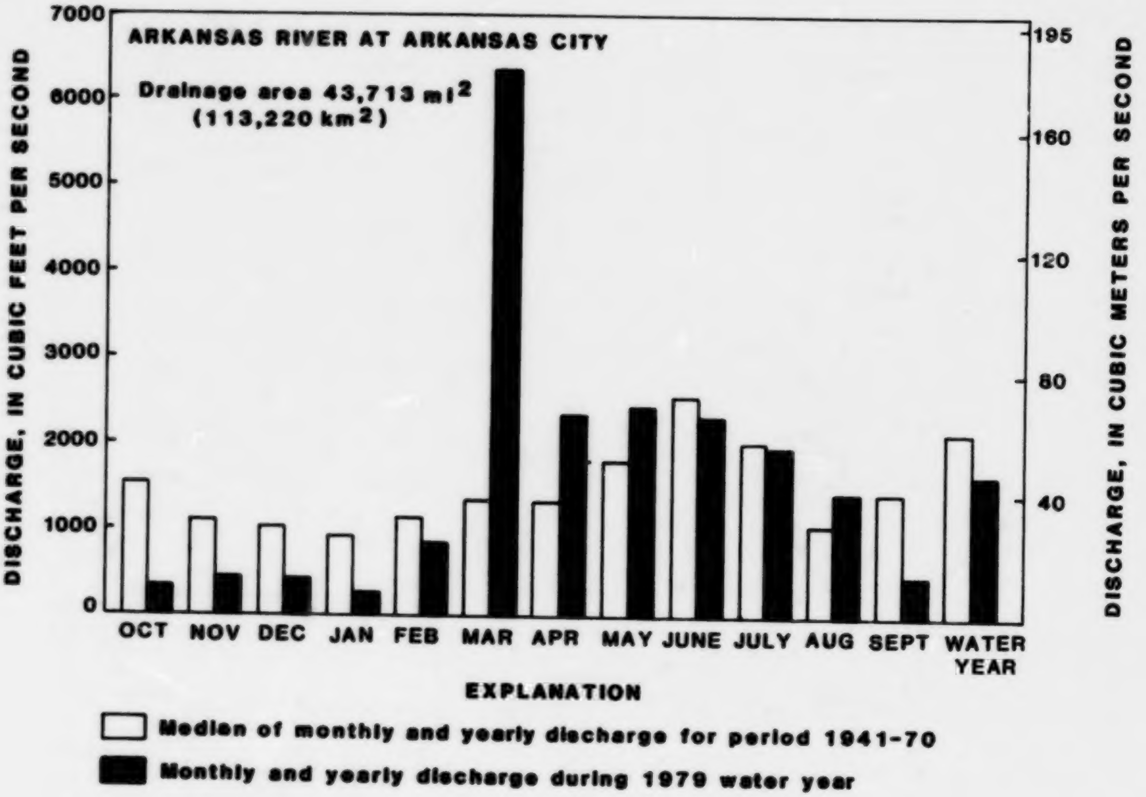


Figure 6.--Discharge during 1979 water year compared with median discharge for period 1941-70 for one representative gaging station.

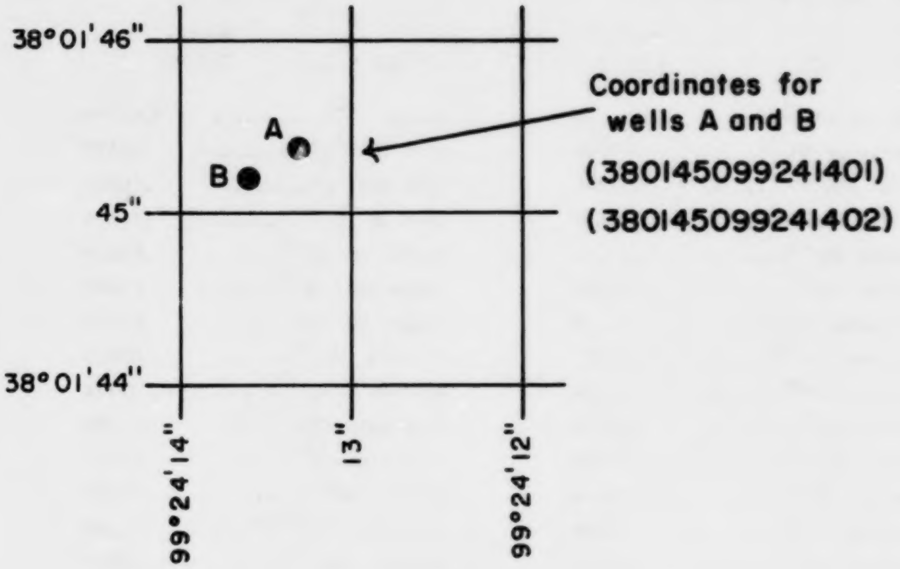
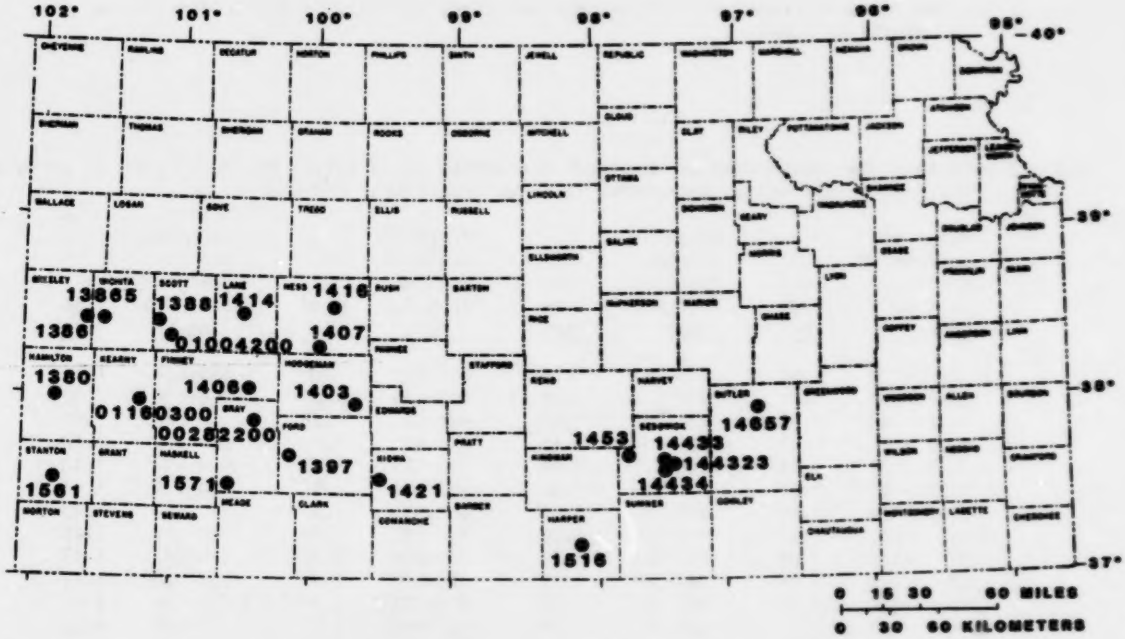

38°01'46"
45"
38°01'44"
99°24'14"
13"
99°24'12"
A
B
Coordinates for wells A and B
(380145099241401)
(380145099241402)

Figure 7.--System for numbering wells and miscellaneous sites.


102°
101°
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96°
95°
40°
39°
38°
37°
1386
13865
1388
1414
1416
1407
01004200
1380
1406
1403
01160300
00282200
1397
1421
1571
1561
1453
14433
144323
14434
14657
1516
0 15 30 60 MILES
0 30 60 KILOMETERS

Figure 8.--Map of Kansas showing location of recording rainfall stations in the Arkansas River basin, 1979 water year.

Table 1.--Factors for conversion of chemical constituents in milligrams or micrograms per liter to milliequivalents per liter.

Ion	Multiply by	Ion	Multiply by
Aluminum (Al^{+3})*.....	0.11119	Iodide (I^{-1}).........	0.00788
Ammonia as NH_4^{+1}.....	.05544	Iron (Fe^{+3})*.........	.05372
Barium (Ba^{+2})........	.01456	Lead (Pb^{+2})*.........	.00965
Bicarbonate (HCO_3^{-1}).	.01639	Lithium (Li^{+1})*......	.14411
Bromide (Br^{-1}).......	.01251	Magnesium (Mg^{+2}).....	.08226
Calcium (Ca^{+2}).......	.04990	Manganese (Mn^{+2})*....	.03640
Carbonate (CO_3^{-2})....	.03333	Nickel (Ni^{+2})*.......	.03406
Chloride (Cl^{-2})......	.02821	Nitrate (NO_3^{-1})......	.01613
Chromium (Cr^{+6})*.....	.11539	Nitrite (NO_2^{-1})......	.02174
Cobalt (Co^{+2})*.......	.03394	Phosphate (PO_4^{-3})....	.03159
Copper (Cu^{+2})*.......	.03148	Potassium (K^{+1})......	.02557
Cyanide (CN^{-1}).......	.03844	Sodium (Na^{+1})........	.04350
Fluoride (F^{-1}).......	.05264	Strontium (Sr^{+2})*....	.02283
Hydrogen (H^{+1}).......	.99209	Sulfate (SO_4^{-2})......	.02082
Hydroxide (OH^{-1}).....	.05880	Zinc (Zn^{+2})*.........	.03060

---

*Constituent reported in micrograms per liter; multiply by factor and divide results by 1,000.

Table 2.--Factors for conversion of sediment concentration in milligrams per liter to parts per million.* (All values calculated to three significant figures.)

Range of concentration in 1,000 mg/L	Divide by	Range of concentration in 1,000 mg/L	Divide by	Range of concentration in 1,000 mg/L	Divide by	Range of concentration in 1,000 mg/L	Divide by
0 - 8	1.00	201-217	1.13	411-424	1.26	619-634	1.39
8.05- 24	1.01	218-232	1.14	427-440	1.27	636-650	1.40
24.2 - 40	1.02	234-248	1.15	443-457	1.28	652-666	1.41
40.5 - 56	1.03	250-264	1.16	460-473	1.29	668-682	1.42
56.5 - 72	1.04	266-280	1.17	476-489	1.30	684-698	1.43
72.5 - 88	1.05	282-297	1.18	492-506	1.31	700-715	1.44
88.5 -104	1.06	299-313	1.19	508-522	1.32	717-730	1.45
105 -120	1.07	315-329	1.20	524-538	1.33	732-747	1.46
121 -136	1.08	331-345	1.21	540-554	1.34	749-762	1.47
137 -152	1.09	347-361	1.22	556-570	1.35	765-780	1.48
153 -169	1.10	363-378	1.23	572-585	1.36	782-796	1.49
170 -185	1.11	380-393	1.24	587-602	1.37	798-810	1.50
186 -200	1.12	395-409	1.25	604-617	1.38		

---

*Based on water density of 1.000 g/mL and a specific gravity of sediment of 2.65.

Table 3.--Sites of rainfall gages in the Lower Mississippi River basin (digital recorder).

Station number	Station name
07138000	Arkansas River at Syracuse
07138600	Whitewoman Creek tributary near Selkirk
07138650	Whitewoman Creek near Leoti
07138800	Lion Creek tributary near Modoc
07139700	Arkansas River tributary near Dodge City
07140300	Whitewoman Creek near Bellefont
07140600	Pawnee River tributary near Kalvesta
07140700	Guzzlers Gulch near Ness City
07141400	S. Fk. Walnut Creek tributary near Dighton
07141600	Long Branch Creek near Ness City
07142100	Rattlesnake Creek tributary near Mullinville
07144323	Fabrique Branch Gypsum Creek, at Harry Street, Wichita
07144330	Dry Creek at Lincoln Street, Wichita
07144340	Dry Creek at Pawnee Avenue, Wichita
07145300	Clear Creek near Garden Plain
07146570	Cole Creek near DeGraff
07151600	Rush Creek near Harper
07156100	Sand Arroyo Creek near Johnson
07157100	Crooked Creek near Copeland
00282200	Gray Co. Landfill near Ingalls Lat 37°48'11", long 100°28'22"
01004200	Wally Robinson Farm near Modoc Lat 38°20'55", long 101°00'42"
01160300	James Draw near Lakin Lat 38°09'27", long 101°16'03"

Table 4.--Conversions of degrees Celsius (°C) to degrees Fahrenheit (°F).* (Temperature reported to nearest 0.5°C.)

°C	°F	°C	°F	°C	°F	°C	°F	°C	°F
0.0	32	10.0	50	20.0	68	30.0	86	40.0	104
.5	33	10.5	51	20.5	69	30.5	87	40.5	105
1.0	34	11.0	52	21.0	70	31.0	88	41.0	106
1.5	35	11.5	53	21.5	71	31.5	89	41.5	107
2.0	36	12.0	54	22.0	72	32.0	90	42.0	108
2.5	36	12.5	54	22.5	72	32.5	90	42.5	108
3.0	37	13.0	55	23.0	73	33.0	91	43.0	109
3.5	38	13.5	56	23.5	74	33.5	92	43.5	110
4.0	39	14.0	57	24.0	75	34.0	93	44.0	111
4.5	40	14.5	58	24.5	76	34.5	94	44.5	112
5.0	41	15.0	59	25.0	77	35.0	95	45.0	113
5.5	42	15.5	60	25.5	78	35.5	96	45.5	114
6.0	43	16.0	61	26.0	79	36.0	97	46.0	115
6.5	44	16.5	62	26.5	80	36.5	98	46.5	116
7.0	45	17.0	63	27.0	81	37.0	99	47.0	117
7.5	45	17.5	63	27.5	81	37.5	99	47.5	117
8.0	46	18.0	64	28.0	82	38.0	100	48.0	118
8.5	47	18.5	65	28.5	83	38.5	101	48.5	119
9.0	48	19.0	66	29.0	84	39.0	102	49.0	120
9.5	49	19.5	67	29.5	85	39.5	103	49.5	121

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*°C = 5/9 (°F - 32) or °F = 9/5 (°C) + 32.

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

Thirty-four manuals by the U.S. Geological Survey have been published to date in the series on techniques describing procedures for planning and executing specialized work in water-resources investigations. The material is grouped under major subject headings called books and is further divided into sections and chapters. For example, Section A of Book 3 (Applications of Hydraulics) is on surface water. The chapter, the unit of publication, is limited to a narrow field of subject matter. This format permits flexibility in revision and publication as the need arises. The reports listed below are for sale by the U.S. Geological Survey, Branch of Distribution, 1200 South Eads Street, Arlington, VA 22202 (authorized agent of the Superintendent of Documents, Government Printing Office).

NOTE: When ordering any of these publications, please give the title, book number, chapter number, and "U.S. Geological Survey Techniques of Water-Resources Investigations."

1-D1. *Water temperature--influential factors, field measurement, and data presentation*, by H. H. Stevens Jr., J. F. Ficke, and G. F. Smoot: USGS--TWRI Book 1, Chapter D1. 1975. 65 pages.

1-D2. *Guidelines for collection and field analysis of ground-water samples for selected unstable contituents*, by W. W. Wood: USGS--TWRI Book 1, Chapter D2. 1976. 24 pages.

2-D1. *Application of surface geophysics to ground-water investigations*, by A. A. R. Zohdy, G. P. Eaton, and D. R. Mabey: USGS--TWRI Book 2, Chapter D1. 1974. 116 pages.

2-E1. *Application of borehole geophysics to water-resources investigations*, by W. S. Keys and L. M. MacCary: USGS--TWRI Book 2, Chapter E1. 1971. 126 pages.

3-A1. *General field and office procedures for indirect discharge measurements*, by M. A. Benson and Tate Dalrymple: USGS--TWRI Book 3, Chapter A1. 1967. 30 pages.

3-A2. *Measurement of peak discharge by the slope-area method*, by Tate Dalrymple and M. A. Benson: USGS--TWRI Book 3, Chapter A2. 1967. 12 pages.

3-A3. *Measurement of peak discharge at culverts by indirect methods*, by G. L. Bodhaine: USGS--TWRI Book 3, Chapter A3. 1968. 60 pages.

3-A4. *Measurement of peak discharge at width contractions by indirect methods*, by H. F. Matthai: USGS--TWRI Book 3, Chapter A4. 1967. 44 pages.

3-A5. *Measurement of peak discharge at dams by indirect methods*, by Harry Hulsing: USGS--TWRI Book 3, Chapter A5. 1967. 29 pages.

3-A6. *General procedure for gaging streams*, by R. W. Carter and Jacob Davidian: USGS--TWRI Book 3, Chapter A6. 1968. 13 pages.

3-A7. *Stage measurements at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A7. 1968. 28 pages.

3-A8. *Discharge measurements at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A8. 1969. 65 pages.

3-A11. *Measurement of discharge by moving-boat method*, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 3, Chapter A11. 1969. 22 pages.

3-B1. *Aquifer-test design, observation, and data analysis*, by R. W. Stallman: USGS--TWRI Book 3, Chapter B1. 1971. 26 pages.

3-B2. *Introduction to ground-water hydraulics, a programed text for self-instruction*, by G. D. Bennett: USGS--TWRI Book 3, Chapter B2. 1976. 172 pages.

3-C1. *Fluvial sediment concepts*, by H. P. Guy: USGS--TWRI Book 3, Chapter C1. 1970. 55 pages.

3-C2. *Field methods for measurement of fluvial sediment*, by H. P. Guy and V. W. Norman: USGS--TWRI Book 3, Chapter C2. 1970. 59 pages.

3-C3. *Computation of fluvial-sediment discharge*, by George Porterfield: USGS--TWRI Book 3, Chapter C3. 1972. 66 pages.

4-A1. *Some statistical tools in hydrology*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A1. 1968. 39 pages.

4-A2. *Frequency curves*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A2. 1968. 15 pages.

4-B1. *Low-flow investigations*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B1. 1972. 18 pages.

4-B2. *Storage analyses for water supply*, by H. C. Riggs and C. H. Hardison: USGS--TWRI Book 4, Chapter B2. 1973. 20 pages.

4-B3. *Regional analyses of streamflow characteristics*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B3. 1973. 15 pages.

4-D1. *Computation of rate and volume of stream depletion by wells*, by C. T. Jenkins: USGS--TWRI Book 4, Chapter D1. 1970. 17 pages.

5-A1. *Methods for determination of inorganic substances in water and fluvial sediments*, by M. W. Skougstad and others, editors: USGS--TWRI Book 5, Chapter A1. 1979. 626 pages.

5-A2. *Determination of minor elements in water by emission spectroscopy*, by P. R. Barnett and E. C. Mallory, Jr.: USGS--TWRI Book 5, Chapter A2. 1971. 31 pages.

5-A3. *Methods for analysis of organic substances in water*, by D. F. Goerlitz and Eugene Brown: USGS--TWRI Book 5, Chapter A3. 1972. 40 pages.

5-A4. *Methods for collection and analysis of aquatic biological and microbiological samples*, edited by P. E. Greeson, T. A. Ehlke, G. A. Irwin, B. W. Lium, and K. V. Slack: USGS--TWRI Book 5, Chapter A4. 1977. 332 pages.

5-A5. *Methods for determination of radioactive substances in water and fluvial sediments*, by L. L. Thatcher, V. J. Janzer, and K. W. Edwards: USGS--TWRI Book 5, Chapter A5. 1977. 95 pages.

5-C1. *Laboratory theory and methods for sediment analysis*, by H. P. Guy: USGS--TWRI Book 5, Chapter C1. 1969. 58 pages.

7-C1. *Finite-difference model for aquifer simulation in two dimensions with results of numerical experiments*, by P. C. Trescott, G. F. Pinder, and S. P. Larson: USGS--TWRI Book 7, Chapter C1. 1976. 116 pages.

7-C2. *Computer model of two-dimensional solute transport and dispersion in ground water*, by L. F. Konikow and J. D. Bredehoeft: USGS--TWRI Book 7, Chapter C2. 1978. 90 pages.

8-A1. *Methods of measuring water levels in deep wells*, by M. S. Garber and F. C. Koopman: USGS--TWRI Book 8, Chapter A1. 1968. 23 pages.

8-B2. *Calibration and maintenance of vertical-axis type current meters*, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 8, Chapter B2. 1968. 15 pages.

07137000 FRONTIER DITCH NEAR COOLIDGE, KS

LOCATION.--Lat 38°02'18", long 102°02'19", in NE¼ sec.21, T.23 S., R.43 W., Hamilton County, Hydrologic Unit 11030001, on left bank 0.3 mi (0.5 km) east of Colorado-Kansas State line, 0.5 mi (0.8 km) downstream from Holly drain diversion, 1.5 mi (2.4 km) west of Coolidge, and 2.3 mi (3.7 km) downstream from diversion from Arkansas River.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1950 to current year.

REVISED RECORDS.--WSP 1731: 1951.

GAGE.--Water-stage recorders and Parshall flume. Datum of gage is 3,353.14 ft (1,022.037 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair. This ditch diverts water from the Arkansas River in Colorado for use in Kansas. These records and records for the Arkansas River rear Coolidge represent total flow of the Arkansas River at the Colorado-Kansas State line.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 84 ft³/s (2.38 m³/s) Aug. 1, 1975; no flow for many days each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	1.7	.92	.00	.00	.00	.00	7.9	4.5	22	25	18
2	1.5	1.5	.63	.00	.00	.00	.00	7.7	8.7	18	25	17
3	1.6	1.4	1.0	.00	.00	.00	.00	9.0	15	8.7	24	20
4	1.2	1.2	.70	.00	.00	.00	.00	7.9	15	7.9	21	18
5	1.1	1.0	.00	.00	.00	.00	.00	6.8	1.8	15	19	16
6	1.2	1.0	.00	.00	.00	.00	.00	5.8	11	15	16	13
7	1.1	.92	.00	.00	.00	.00	.00	4.3	17	26	15	13
8	1.1	.92	.00	.00	.00	.00	.00	4.8	16	22	14	12
9	.81	.92	.00	.00	.00	.00	.00	4.6	17	27	16	9.5
10	.81	1.0	.00	.00	.00	.00	.00	5.6	26	28	18	9.3
11	1.1	1.0	.00	.00	.00	.00	.00	5.2	20	21	16	10
12	1.0	1.0	.00	.00	.00	.00	.00	4.6	18	19	14	11
13	.92	1.1	.00	.00	.00	.00	.00	4.6	16	13	25	13
14	.92	1.1	.00	.00	.00	.00	.00	5.0	11	41	23	14
15	1.0	1.1	.00	.00	.00	.00	.00	4.3	8.2	48	23	14
16	.92	1.1	.00	.00	.00	.00	.00	4.1	7.7	47	27	14
17	1.0	1.0	.00	.00	.00	.00	.00	4.3	11	41	35	14
18	1.4	1.0	.00	.00	.00	.00	.00	3.5	7.0	41	48	12
19	1.4	.92	.00	.00	.00	.00	.00	2.8	6.8	49	32	13
20	1.4	.92	.00	.00	.00	.00	.00	3.2	9.8	28	57	15
21	1.5	1.0	.00	.00	.00	.00	.00	3.5	4.6	33	28	13
22	2.0	1.0	.00	.00	.00	.00	.00	3.3	7.9	35	17	13
23	1.7	1.0	.00	.00	.00	.00	.00	3.9	5.6	38	14	11
24	1.7	1.0	.00	.00	.00	.00	.00	3.9	5.2	32	18	7.9
25	1.8	1.4	.00	.00	.00	.00	.00	5.8	16	30	14	7.9
26	2.3	1.2	.00	.00	.00	.00	2.4	4.3	26	22	24	7.2
27	2.5	1.0	.00	.00	.00	.00	5.1	8.2	14	18	36	7.7
28	2.5	1.0	.00	.00	.00	.00	5.6	12	8.4	18	31	7.2
29	2.5	1.0	.00	.00	---	.00	8.2	9.0	26	22	16	6.8
30	3.3	.92	.00	.00	---	.00	8.2	32	32	28	15	6.8
31	2.1	---	.00	.00	---	.00	---	36	---	24	21	---
TOTAL	47.08	32.32	3.25	.00	.00	.00	29.50	227.9	393.2	837.6	727	364.3
MEAN	1.52	1.08	.10	.000	.000	.000	.98	7.35	13.1	27.0	23.5	12.1
MAX	3.3	1.7	1.0	.00	.00	.00	8.2	36	32	49	57	20
MIN	.81	.92	.00	.00	.00	.00	.00	2.8	1.8	7.9	14	6.8
AC-FT	93	64	6.4	.00	.00	.00	59	452	780	1660	1440	723

CAL YR 1978 TOTAL 2978.08 MEAN 8.16 MAX 61 MIN .00 AC-FT 5910
WTR YR 1979 TOTAL 2662.15 MEAN 7.29 MAX 57 MIN .00 AC-FT 5280

07137500 ARKANSAS RIVER NEAR COOLIDGE, KS
(National stream-quality accounting network and pesticide station)

LOCATION.--Lat 38°01'34", long 102°00'41", in NE¼NW¼ sec.26, T.23 S., R.43 W., Hamilton County, Hydrologic Unit 11030001, on right bank at downstream side of bridge, 1.0 mi (1.6 km) south of Coolidge, and 1.9 mi (3.1 km) downstream from Colorado-Kansas State line.

DRAINAGE AREA.--25,410 mi^2 (65,812 km^2), of which 1,708 mi^2 (4,424 km^2) is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May to October 1903, March to May 1921, October 1950 to current year. Monthly discharge only for some periods, published in WSP 1311.

REVISED RECORDS.--WSP 1341: 1903, drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,330.84 ft (1,015.240 m) National Geodetic Vertical Datum of 1929. May 5 to Oct. 31, 1903, nonrecording gage, and Mar. 1 to May 31, 1921, water-stage recorder at present site at different datums. Oct. 1, 1950, to Mar. 31, 1966, water-stage recorder at site 0.3 mi (0.5 km) upstream at datum 3.00 ft (0.914 m) higher.

REMARKS.--Records good except those for winter periods, which are fair. Combined flow of river and Frontier Ditch (see sta 07137000) represents entire flow that enters Kansas. Flow regulated by John Martin Reservoir (see sta 07130000). Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation of about 500,000 acres (2,020 km^2), and return flow from irrigated areas.

AVERAGE DISCHARGE.--29 years, 183 ft^3/s (5.183 m^3/s), 132,600 acre-ft/yr (163 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 158,000 ft^3/s (4,470 m^3/s) June 17, 1965, gage height, 14.8 ft (4.51 m), present site and datum, from floodmarks, from rating curve extended above 13,000 ft^3/s (370 m^3/s) on basis of slope-area measurement of peak flow; no flow for many days in 1903, 1954, 1960.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 780 ft^3/s (22.1 m^3/s) May 31, gage height, 4.30 ft (1.311 m); minimum 0.60 ft^3/s (0.017 m^3/s) Sept. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	.80	2.6	3.0	5.4	9.6	8.7	3.5	143	18	23	4.5
2	2.0	1.0	2.7	2.0	5.0	9.6	8.4	3.8	194	17	27	4.1
3	2.0	.98	3.0	1.5	4.5	10	8.7	3.6	304	14	15	4.5
4	2.4	1.0	3.4	1.5	4.5	9.8	9.0	3.2	503	13	11	4.1
5	2.4	1.0	3.5	1.3	4.5	8.4	7.9	3.5	239	121	9.8	4.5
6	2.5	1.0	3.4	1.5	4.5	8.6	7.5	3.2	107	67	11	4.1
7	2.5	1.0	3.2	1.5	4.5	9.4	7.1	2.9	58	33	12	5.4
8	2.2	1.0	3.0	1.5	4.0	8.6	7.6	2.9	48	27	5.9	6.5
9	1.9	1.0	2.8	1.5	5.0	8.4	8.0	3.3	61	35	3.4	4.5
10	3.2	1.0	2.6	1.5	5.5	8.6	8.5	4.0	128	37	3.1	3.4
11	2.2	1.0	2.5	1.5	5.4	8.4	9.5	4.0	78	26	4.1	2.6
12	2.1	1.0	3.0	1.5	5.6	7.9	10	3.6	62	23	4.1	2.0
13	2.1	1.0	3.5	1.6	5.7	7.2	11	2.6	50	19	5.9	2.2
14	1.7	1.1	4.0	1.6	6.0	6.6	11	2.5	34	112	8.4	5.4
15	1.5	1.3	4.5	1.7	5.6	6.5	11	2.3	26	179	12	3.7
16	1.6	1.3	5.0	1.8	5.6	7.0	13	2.2	23	213	11	4.1
17	3.6	1.3	5.0	2.0	5.2	6.4	13	2.0	15	265	6.5	2.6
18	2.2	1.3	5.3	2.5	4.5	5.9	13	2.2	11	303	12	2.2
19	1.3	1.1	5.1	3.5	3.5	5.5	14	2.5	9.5	363	5.9	1.6
20	.92	.70	5.0	4.5	4.3	5.7	16	3.2	9.6	226	42	3.1
21	1.4	2.8	6.3	5.4	6.0	9.2	15	3.5	8.6	189	25	11
22	2.3	2.4	4.5	5.7	8.7	11	11	2.8	7.8	86	19	11
23	1.8	2.2	4.5	5.8	7.4	9.0	9.5	2.4	6.2	53	17	8.4
24	1.4	2.2	4.5	5.8	8.3	8.4	8.5	2.4	7.8	43	15	3.4
25	3.7	2.5	4.5	5.1	8.5	8.6	11	2.3	19	37	11	1.1
26	2.5	2.6	4.5	5.2	7.2	8.2	9.3	2.2	30	35	11	.90
27	1.5	2.6	4.5	5.0	9.5	9.1	4.5	2.1	16	29	19	.70
28	1.2	2.6	4.6	5.0	11	11	3.9	3.6	12	29	24	.60
29	.89	2.6	4.0	5.0	---	9.5	3.8	5.0	49	25	19	1.6
30	1.1	2.6	3.5	5.0	---	8.3	3.4	132	29	18	12	1.3
31	.87	---	3.5	5.4	---	10	---	496	---	16	9.1	---
TOTAL	60.98	45.98	122.0	97.4	165.4	260.4	282.8	715.3	2288.5	2671	414.2	115.10
MEAN	1.97	1.53	3.94	3.14	5.91	8.40	9.43	23.1	76.3	86.2	13.4	3.84
MAX	3.7	2.8	6.3	5.8	11	11	16	496	503	363	42	11
MIN	.87	.70	2.5	1.3	3.5	5.5	3.4	2.0	6.2	13	3.1	.60
AC-FT	121	91	242	193	328	517	561	1420	4540	5300	822	228

CAL YR 1978 TOTAL 10897.86 MEAN 51.8 MAX 2080 MIN .70 AC-FT 37480
WTR YR 1979 TOTAL 7239.06 MEAN 19.8 MAX 503 MIN .60 AC-FT 14360

07137500 ARKANSAS RIVER NEAR COOLIDGE, KS--Continued

(National stream-quality accounting network and pesticide station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964-68, 1970-73, 1975 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1964 to September 1968, October 1975 to September 1977, March 1978 to current year.
WATER TEMPERATURES: October 1964 to September 1968, October 1975 to September 1977, February 1978 to current year.

INSTRUMENTATION.--Continuous monitor for specific conductance and water temperatures since October 1975.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 6,800 micromhos Mar. 29, 1978; minimum, 454 micromhos June 18, 1965.
WATER TEMPERATURES: Maximum, 34.0°C July 9, 1967; minimum, 0.0°C on several days during winter periods.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 5,690 micromhos Nov. 1; minimum daily, 1,090 micromhos May 31.
WATER TEMPERATURES: Maximum daily, 28.0°C July 15; minimum daily, 0.0°C on several days during winter period.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
OCT												
26...	2.5	4250	8.3	7.0	11	11.1	90	<1	1500	1200	310	170
NOV												
14...	2.4	4150	7.9	2.0	.60	11.7	K8	100	1600	1400	410	150
DEC												
05...	3.6	4100	8.1	1.0	9.8	12.2	K10	390	1700	1500	300	220
FEB												
01...	5.4	7800	7.7	.5	18	11.5	K12	89	--	--	--	--
14...	6.1	4200	8.1	9.0	25	10.4	K2	230	1300	1200	330	120
MAR												
07...	9.6	4700	8.2	10.0	290	10.2	K37	130	1700	1600	380	180
APR												
10...	8.1	4600	7.8	12.0	52	11.0	130	840	1500	1400	320	180
MAY												
15...	2.5	4600	8.1	18.0	2.9	10.1	58	220	1700	1500	400	170
JUN												
26...	19	1810	8.2	26.0	360	8.1	1000	4700	650	510	160	60
JUL												
30...	17	3100	8.0	23.0	23	6.4	1700	--	1200	1000	270	130
AUG												
28...	26	2350	8.3	24.0	480	9.1	620	5400	850	690	200	86
SEP												
21...	12	3200	8.5	17.5	.90	11.1	410	660	0	0	--	--

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	PHYTO-PLANK-TON, TOTAL (CELLS PER ML)
OCT												
26...	530	6.0	15	240	2200	190	.7	16	4070	5.54	27.5	--
NOV												
14...	550	5.9	10	200	2500	32	.5	12	3950	5.37	25.6	420
DEC												
05...	560	6.0	14	200	2300	210	.6	8.8	4220	5.74	41.0	--
FEB												
01...	--	--	--	250	2400	220	.6	15	4470	6.08	65.2	--
14...	600	7.2	12	160	2200	190	.5	13	4120	5.60	68.1	330
MAR												
07...	610	6.5	14	85	2600	180	.7	12	4350	5.92	113	--
APR												
10...	610	6.8	10	190	2400	200	.6	9.4	4320	5.88	94.5	--
MAY												
15...	650	6.9	12	218	2500	230	.6	6.0	4460	6.07	30.1	440
JUN												
26...	200	3.4	8.8	140	840	57	.7	9.8	1530	2.08	80.6	14000
JUL												
30...	420	5.3	13	210	1400	120	.8	14	2030	3.05	136	--
AUG												
28...	270	4.0	9.9	160	1200	72	.7	10	1990	2.71	142	63000
SEP												
21...	380	--	10	140	1700	100	.8	9.5	--	3.11	75.4	--

K RESULTS BASED ON COLONY COUNT OUTSIDE THE ACCEPTABLE RANGE (NON-IDEAL COLONY COUNT).

07137500 ARKANSAS RIVER NEAR COOLIDGE, KS--Continued
(National stream-quality accounting network and pesticide station)

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	NITRO-GEN, DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)
OCT												
26...	--	2.3	--	.08	.62	.69	2.9	.01	.01	4.4	--	--
NOV												
14...	--	1.1	--	.01	.61	.69	1.7	.01	.01	--	1640	--
DEC												
05...	--	.87	--	.01	.67	.56	1.5	.00	.00	5.0	--	--
FEB												
01...	--	1.2	--	.07	.61	.51	1.8	.02	.00	4.1	--	--
14...	--	.88	--	.03	.57	.43	1.5	.04	.02	--	2100	.6
MAR												
07...	--	.99	--	.18	1.4	.52	2.4	.00	.01	10	--	--
APR												
10...	--	.65	--	.11	.64	--	1.3	.01	.00	--	--	--
MAY												
15...	--	.25	--	.06	.28	.29	.53	.01	.01	--	19000	.1
JUN												
26...	--	.72	--	.11	2.4	.51	3.1	.41	.00	16	--	--
JUL												
30...	--	1.0	--	.03	.92	.11	1.9	.09	.03	7.6	--	--
AUG												
28...	--	.79	--	.03	1.3	.52	2.1	.08	.01	--	--	--
SEP												
21...	1.5	.28	.36	.06	1.7	1.1	2.0	.10	.01	9.1	--	--

DATE	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BARIUM, SUS-PENDED RECOV-ERABLE (UG/L AS BA)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM SUS-PENDED RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, SUS-PENDED RECOV. (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)
NOV												
14...	1	0	0	0	0	3	2	1	0	0	0	0
FEB												
14...	1	1	0	0	0	0	0	0	0	0	10	2
MAY												
15...	1	1	0	0	100	0	0	0	20	10	10	0
AUG												
28...	2	1	100	100	0	0	0	0	20	10	10	7

DATE	COBALT, SUS-PENDED RECOV-ERABLE (UG/L AS CO)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, SUS-PENDED RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)
NOV												
14...	0	0	2	1	1	140	20	31	13	240	250	.0
FEB												
14...	2	0	4	2	2	830	20	13	7	230	180	.0
MAY												
15...	0	0	5	4	1	130	20	18	0	100	80	.0
AUG												
28...	7	0	14	13	1	14000	10	24	0	440	30	.1

DATE	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, SUS-PENDED TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, SUS-PENDED RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)
NOV											
14...	.0	.0	23	5	18	20	0	20	0	0	0
FEB											
14...	.0	.0	17	0	17	40	10	30	1	0	1
MAY											
15...	.0	.1	16	0	17	30	10	20	0	0	0
AUG											
28...	.1	.0	12	0	13	60	50	10	0	0	0

07137500 ARKANSAS RIVER NEAR COOLIDGE, KS--Continued
(National stream-quality accounting network and pesticide station)

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	PCB, TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLOR-DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI-AZINON, TOTAL (UG/L)	DI-ELDRIN TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)
NOV										
14...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB										
14...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	HEPTA-CHLOR, TOTAL (UG/L)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALA-THION, TOTAL (UG/L)	METH-OXY-CHLOR, TOTAL (UG/L)	METHYL PARA-THION, TOTAL (UG/L)	METHYL TRI-THION, TOTAL (UG/L)	PARA-THION, TOTAL (UG/L)	TOX-APHENE, TOTAL (UG/L)	TOTAL TRI-THION (UG/L)
NOV										
14...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB										
14...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

ND NOT DETECTED; DETECTION LIMIT IS 0.01 UG/L.

DATE	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDT, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DI-AZINON, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DI-ELDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ETHION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	HEPTA-CHLOR, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
NOV										
14...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	HEPTA-CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	MALA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	METH-OXY-CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARA-THION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRI-THION, TOT. IN BOTTOM MATL. (UG/KG)	PARA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	TOXA-PHENE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	TRI-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
NOV									
14...	ND	ND	ND	ND	ND	ND	ND	ND	ND

ND NOT DETECTED; DETECTION LIMIT IS 0.10 UG/KG.

07137500 ARKANSAS RIVER NEAR COOLIDGE, KS--Continued
(National stream-quality accounting network and pesticide station)

PHYTOPLANKTON ANALYSES, JUNE 1978 TO AUGUST 1979

DATE	JUL 6,78	AUG 30,78	SEP 26,78	NOV 14,78
TIME	1200	1030	1000	1100
TOTAL CELLS/ML	56	1600	6300	420
DIVERSITY: DIVISION	1.0	1.5	1.2	0.0
.CLASS	1.0	1.5	1.3	0.0
..ORDER	1.0	1.7	1.7	0.3
...FAMILY	1.0	2.2	1.9	1.7
....GENUS	1.5	2.2	2.1	2.1

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...CHARACIACEAE								
....SCHROEDERIA	--	-	290#	18	--	-	--	-
...MICRACTINIACEAE								
....GOLENKINIA	--	-	--	-	--	-	--	-
...OOCYSTACEAE								
....ANKISTRODESMUS	--	-	--	-	39	1	--	-
....CHODATELLA	--	-	--	-	39	1	--	-
....KIRCHNERIELLA	--	-	--	-	39	1	--	-
....OOCYSTIS	--	-	--	-	--	-	--	-
...SCENEDESMACEAE								
....ACTINASTRUM	--	-	--	-	--	-	--	-
....SCENEDESMUS	--	-	--	-	--	-	--	-
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CARTERIA	--	-	--	-	39	1	--	-
....CHLAMYDOMONAS	--	-	21	1	200	3	--	-
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..PENNALES								
...NAVICULACEAE								
....ENTOMONEIS	--	-	--	-	79	1	--	-
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	--	-	21	1	630	10	22	5
....MELOSIRA	--	-	--	-	--	-	--	-
....SKELETONEMA	--	-	--	-	79	1	--	-
....STEPHANODISCUS	--	-	--	-	--	-	--	-
..PENNALES								
...ACHNANTHACEAE								
....ACHNANTHES	--	-	--	-	--	-	89#	21
....COCCONEIS	--	-	21	1	--	-	--	-
...CYMBELLACEAE								
....AMPHORA	22#	40	--	-	--	-	--	-
....CYMBELLA	11#	20	--	-	--	-	--	-
...NAVICULACEAE								
....CALONEIS	--	-	--	-	--	-	44	11
....NAVICULA	--	-	490#	30	200	3	150#	37
...NITZSCHIACEAE								
....NITZSCHIA	--	-	220	14	2600#	41	110#	26
.CHRYSOPHYCEAE								
..CHRYSOMONADALES								
...OCHROMONADACEAE								
....OCHROMONAS	--	-	--	-	39	1	--	-
CRYPTOPHYTA (CRYPTOMONADS)								
.CRYPTOPHYCEAE								
..CRYPTOMONADALES								
...CRYPTOMONADACEAE								
....CRYPTOMONAS	--	-	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..HORMOGONALES								
...NOSTOCACEAE								
....ANABAENA	--	-	--	-	--	-	--	-
...OSCILLATORIACEAE								
....OSCILLATORIA	--	-	530#	33	2300#	36	--	-
....SPIRULINA	--	-	--	-	39	1	--	-
EUGLENOPHYTA (EUGLENOIDS)								
.EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
....EUGLENA	22#	40	11	1	--	-	--	-
....TRACHELOMONAS	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

07137500 ARKANSAS RIVER NEAR COOLIDGE, KS--Continued
(National stream-quality accounting network and pesticide station)

PHYTOPLANKTON ANALYSES, JUNE 1978 TO AUGUST 1979

DATE	FEB 14,79	MAY 15,79	JUN 26,79	AUG 28,79
TIME	1200	1115	1200	1205
TOTAL CELLS/ML	330	440	14000	63000
DIVERSITY: DIVISION	1.6	0.0	0.7	1.6
.CLASS	1.6	0.0	0.7	1.6
..ORDER	1.7	0.7	1.6	2.2
...FAMILY	2.1	1.1	2.2	2.3
....GENUS	2.1	1.1	2.7	2.5

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...CHARACIACEAE								
....SCHROEDERIA	--	-	--	-	--	-	--	-
...MICRACTINIACEAE								
....GOLENKINIA	--	-	--	-	130	1	--	-
...OOCYSTACEAE								
....ANKISTRODESMUS	--	-	--	-	260	2	3600	6
....CHODATELLA	--	-	--	-	--	-	--	-
....KIRCHNERIELLA	--	-	--	-	--	-	--	-
....OOCYSTIS	--	-	--	-	--	-	3200	5
...SCENEDESMACEAE								
....ACTINASTRUM	--	-	--	-	--	-	1600	3
....SCENEDESMUS	--	-	--	-	1300	9	--	-
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CARTERIA	--	-	--	-	--	-	--	-
....CHLAMYDOMONAS	--	-	--	-	130	1	4000	6
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..PENNALES								
...NAVICULACEAE								
....ENTOMONEIS	--	-	--	-	--	-	--	-
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	5	2	78#	18	1300	9	20000#	32
....MELOSIRA	--	-	--	-	3000#	21	--	-
....SKELETONEMA	--	-	--	-	--	-	--	-
....STEPHANODISCUS	--	-	--	-	900	7	--	-
..PENNALES								
...ACHNANTHACEAE								
....ACHNANTHES	--	-	--	-	--	-	--	-
....COCCONEIS	--	-	--	-	--	-	--	-
...CYMBELLACEAE								
....AMPHORA	--	-	--	-	--	-	--	-
....CYMBELLA	--	-	--	-	--	-	--	-
...NAVICULACEAE								
....CALONEIS	--	-	--	-	--	-	--	-
....NAVICULA	110#	32	39	9	3000#	21	400	1
...NITZSCHIACEAE								
....NITZSCHIA	45	14	320#	74	3600#	26	11000#	17
.CHRYSOPHYCEAE								
..CHRYSOMONADALES								
...OCHROMONADACEAE								
....OCHROMONAS	--	-	--	-	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)								
.CRYPTOPHYCEAE								
..CRYPTOMONADALES								
...CRYPTOMONADACEAE								
....CRYPTOMONAS	10	3	--	-	130	1	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..HORMOGONALES								
...NOSTOCACEAE								
....ANABAENA	100#	30	--	-	--	-	--	-
...OSCILLATORIACEAE								
....OSCILLATORIA	--	-	--	-	--	-	18000#	29
....SPIRULINA	--	-	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)								
.EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
....EUGLENA	--	-	--	-	--	-	--	-
....TRACHELOMONAS	65#	20	--	-	130	1	800	1

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

07137500 ARKANSAS RIVER NEAR COOLIDGE, KS--Continued
(National stream-quality accounting network and pesticide station)

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5100	5690				4800	4620	4080	1780	2440	3490	3360
2	5090	5540				4800	4640	4000	1560	2910	3070	3300
3	4380	5450				4750	4660	3950	1520	3490	3260	3320
4	3780	5380				4700	4630	4000	1480	3870	3620	3340
5	---	5500				4650	4600	4040	1500	3120	3740	3360
6	---	5380				4680	4600	4050	1730	1670	3600	3380
7	---	5290				4700	4620	4050	1910	2050	3580	3100
8	---	5250				4730	4640	4080	1940	2160	4200	2800
9	---	5220				4760	4620	4080	1610	2170	4560	2950
10	---	5310				4800	4600	4070	1230	2120	4400	3100
11	---	5210				4840	4580	4050	1760	2110	4100	3250
12	---	5190				4890	4560	4090	1860	2130	3920	3400
13	---	5150				4940	4600	4130	1970	2150	3820	3420
14	---	---				4980	4640	4100	2250	2160	3500	3000
15	---	---				5020	4680	4090	2540	1990	3200	3100
16	---	---				5050	4660	4100	2700	1320	3190	3050
17	---	---				5080	4680	4120	3270	1360	3360	3200
18	---	---				5010	4700	4100	3620	1170	2930	3400
19	---	---				4980	4680	4080	4050	1180	3340	3600
20	---	---				4960	4660	4060	3700	1310	2180	3490
21	---	---				4920	4310	4040	3880	1530	2600	3380
22	---	---				4710	3910	4020	3980	1700	2960	3870
23	---	---				4550	3890	4000	4160	1880	3100	3900
24	---	---				4560	3940	3980	3950	2060	3240	4590
25	---	---				4580	4050	3960	2900	2240	3000	4900
26	---	---				4630	4060	3940	1810	2430	2800	5000
27	---	---				4580	4060	3920	3040	2620	2640	5100
28	---	---				[illegible]	4080	3300	3510	2800	2380	5200
29	---	---				4620	4090	2700	2340	2980	2440	4950
30	---	---				4620	4110	2080	2070	3160	2910	5060
31	---	---				4600	---	1090	---	3820	3030	---

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.0	11.5	2.0	4.0	10.5	8.0	6.0	18.0	19.5	25.5	24.5	23.5
2	16.0	14.0	1.5	3.0	6.0	8.0	7.0	15.5	19.5	26.0	23.0	22.5
3	16.5	16.0	1.5	2.0	3.0	8.5	6.0	11.5	23.0	25.5	23.0	23.5
4	15.0	19.0	1.5	1.0	.0	8.5	8.5	16.0	26.0	24.5	25.0	23.5
5	14.0	12.5	1.0	.0	1.0	9.0	12.0	19.0	27.0	22.0	24.5	24.5
6	13.5	11.5	1.0	.0	3.0	9.5	7.5	20.0	26.5	23.0	24.5	24.0
7	15.5	10.0	1.0	.0	4.5	9.0	12.0	18.5	25.0	24.0	25.0	24.0
8	17.0	10.5	.5	.0	5.0	11.0	13.5	18.0	16.5	25.5	25.5	24.0
9	15.0	10.5	.5	.0	5.5	8.5	12.0	14.0	17.0	24.0	27.0	23.5
10	15.0	9.0	.5	1.5	7.0	9.0	11.5	13.5	20.0	25.5	19.0	22.0
11	15.5	7.5	.0	3.0	8.0	9.5	11.5	14.0	24.5	24.0	20.5	21.0
12	13.5	6.0	.0	4.5	9.0	10.0	10.5	14.5	24.0	22.5	21.5	17.5
13	13.0	4.5	.0	6.0	9.5	9.5	13.5	16.5	25.0	23.0	24.0	16.5
14	10.5	3.0	.0	7.5	9.5	9.0	15.5	17.5	25.0	25.5	16.5	15.0
15	10.5	2.0	.0	6.0	9.5	8.5	19.0	20.0	25.5	24.0	17.5	16.5
16	10.5	1.5	.0	4.5	10.5	9.5	19.5	20.0	25.0	26.0	21.5	18.0
17	14.0	1.5	.0	3.0	6.0	11.0	20.0	18.5	24.5	26.0	23.0	18.5
18	11.5	2.5	.0	1.5	7.5	10.5	22.0	22.5	24.0	24.5	23.5	19.0
19	11.0	3.5	.0	1.0	10.5	9.0	23.0	19.0	24.0	23.0	22.5	17.5
20	11.5	4.5	.0	1.0	9.0	7.0	22.0	16.0	23.0	26.5	21.0	17.5
21	13.0	5.5	.0	.5	7.0	7.0	19.0	18.5	22.5	27.0	23.0	15.0
22	9.5	6.5	.0	.5	6.0	7.0	20.5	21.0	22.0	27.5	23.5	16.5
23	8.0	5.5	1.0	.0	7.5	8.5	22.0	18.5	21.0	25.5	23.5	18.0
24	11.0	4.5	2.0	.0	7.5	9.0	23.5	16.5	20.0	25.5	22.0	19.5
25	9.5	3.5	3.0	.0	8.0	10.5	20.0	18.5	20.5	25.5	22.0	20.5
26	10.0	2.5	4.0	.0	8.0	6.0	20.5	22.0	26.0	26.0	22.5	20.0
27	6.0	1.5	5.0	.0	8.5	8.0	18.0	21.5	26.5	26.5	23.0	21.0
28	4.0	2.0	6.0	.5	8.0	13.0	18.5	23.0	26.0	26.5	25.0	21.5
29	9.0	1.0	5.5	2.0	---	12.5	18.5	23.5	23.5	27.0	25.0	20.5
30	10.0	2.5	5.0	3.5	---	11.0	19.5	19.0	25.5	25.0	24.0	20.5
31	10.5	---	4.5	8.5	---	7.5	---	19.0	---	24.0	25.5	---

07137500 ARKANSAS RIVER NEAR COOLIDGE, KS--Continued

(National stream-quality accounting network and pesticide station)

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
FEB					
14...	1200	6.1	4200	245	4.0
MAR					
07...	1430	9.7	--	459	12
MAY					
29...	1330	4.6	4500	64	.80
30...	1750	252	1160	10700	7280
30...	2000	310	--	9300	7780
31...	1300	580	1200	2740	4290
JUN					
19...	1220	9.9	4050	112	3.0
JUL					
11...	1520	26	2900	177	12
16...	1200	203	1230	1170	641
19...	1615	393	910	3260	3460
AUG					
28...	1205	26	2350	698	50
SEP					
13...	1610	4.2	4200	122	1.4
21...	1330	12	3200	84	2.7

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	SEDI-MENT, SUS-PENDED (MG/L)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM
MAY							
30...	1750	10700	57	75	97	100	--
31...	1300	2740	49	57	76	99	100

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	SEDI-MENT, SUS-PENDED (MG/L)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM
AUG					
28...	1205	698	84	97	100

07138000 ARKANSAS RIVER AT SYRACUSE, KS

LOCATION.--Lat 37°57'58", long 101°45'23", in NW¼SE¼NW¼ sec.18, T.24 S., R.40 W., Hamilton County, Hydrologic Unit 11030001, at left end of bridge on U.S. Highway 270, 0.5 mi (0.8 km) south of Syracuse, and at mile 1,080.9 (1,739.2 km).

DRAINAGE AREA.--25,763 mi^2 (66,726 km^2), of which 1,857 mi^2 (4,810 km^2) is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1902 to September 1906 (published as "near Syracuse"), October 1920 to current year. Monthly discharge only for some periods published in WSP 1311.

GAGE.--Water-stage recorder. Datum of gage is 3,209.32 ft (978.201 m) National Geodetic Vertical Datum of 1929. See WSP 1921 for history of changes prior to Nov. 15, 1956.

REMARKS.--Records fair. Flow moderately regulated by John Martin Reservoir (see sta 07130000). Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation and return flow from irrigated areas.

AVERAGE DISCHARGE.--63 years, 321 ft^3/s (9.091 m^3/s), 232,600 acre-ft/yr (287 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 174,000 ft^3/s (4,930 m^3/s) June 17, 1965, gage height, 19.75 ft (6.020 m) from rating curve extended above 62,000 ft^3/s (1,760 m^3/s) on basis of indirect measurements; maximum gage height, 21.80 ft (6.645 m) June 17, 1965; no flow Aug. 17, 1946, and part of each day Sept. 26, 27, 1974.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in October 1908 reached a stage of about 11.7 ft (3.57 m) from information by local newspaper, discharge, about 87,000 ft^3/s (2,460 m^3/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 418 ft^3/s (11.8 m^3/s) May 31, gage height, 5.16 ft (1.573 m); minimum 0.48 ft^3/s (0.014 m^3/s) Sept. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.75	.97	1.4	1.1	1.5	2.4	4.6	1.3	168	13	16	1.0
2	.72	.97	1.5	1.1	1.4	1.8	4.9	1.5	111	10	13	.84
3	.68	.97	1.5	1.1	1.4	1.2	5.3	1.2	155	7.8	15	.84
4	.73	.97	1.5	1.1	1.2	1.2	5.4	1.2	345	5.3	15	.78
5	.75	.95	1.5	1.1	1.3	1.3	4.9	1.2	296	6.9	8.2	.73
6	.68	.97	1.3	1.1	1.4	1.2	3.9	1.2	152	61	4.4	.78
7	.68	.97	1.3	1.1	1.3	1.7	4.2	1.1	88	33	1.5	.66
8	.68	1.0	1.3	1.1	1.4	2.4	3.4	1.1	64	23	1.1	.66
9	.68	1.0	1.3	1.1	1.4	2.6	3.3	1.1	61	75	1.3	.65
10	.68	1.0	1.3	1.1	1.5	2.6	3.6	1.1	86	37	1.3	.65
11	.68	1.0	1.5	1.1	1.6	3.0	4.6	1.0	104	23	1.5	.65
12	.65	1.0	1.3	1.1	1.8	3.3	3.8	.99	78	15	1.5	.61
13	.61	1.0	1.1	1.0	1.7	3.7	3.8	1.0	61	13	1.5	.58
14	.59	1.0	1.1	1.0	1.8	3.4	3.3	1.0	49	17	1.4	.65
15	.61	1.0	1.1	1.1	1.7	3.6	3.3	1.1	35	81	1.2	.72
16	.61	1.1	1.3	1.3	1.7	4.1	2.7	1.1	27	139	1.1	.75
17	.65	1.1	1.3	1.2	1.7	4.7	2.5	1.1	23	175	1.1	.74
18	.75	1.1	1.3	1.2	1.6	5.3	2.6	1.1	16	263	1.2	.65
19	.75	1.1	1.3	1.2	1.8	5.2	2.4	1.1	11	226	1.0	.63
20	.75	1.1	1.5	1.2	1.8	4.9	2.2	1.1	9.7	320	.98	.64
21	.79	1.1	1.3	1.2	1.8	7.9	2.0	.99	9.2	206	14	.69
22	1.0	1.1	1.3	1.2	1.9	7.1	2.6	1.0	7.9	150	6.0	.71
23	.97	1.1	1.3	1.2	2.2	6.6	2.7	1.1	7.1	87	1.7	.67
24	.97	1.3	1.3	1.2	2.2	5.6	2.8	1.2	6.7	58	1.7	.65
25	.97	1.3	1.5	1.2	2.2	5.6	2.4	1.3	6.3	44	1.2	.73
26	1.0	1.3	1.3	1.3	2.2	4.4	2.4	1.3	8.9	38	.93	.70
27	.97	1.3	1.5	1.3	2.4	3.9	2.4	1.5	12	31	25	.70
28	.92	1.3	1.2	1.4	2.3	4.4	1.9	1.4	7.4	29	8.1	.66
29	.93	1.3	1.1	1.5	---	4.1	2.0	1.6	5.8	28	5.8	.68
30	.97	1.3	1.1	1.5	---	3.7	1.4	3.4	16	24	2.7	.71
31	.97	---	1.1	1.5	---	3.0	---	214	---	21	1.4	---
TOTAL	24.14	32.67	40.5	36.9	48.2	115.9	97.3	251.38	2023.0	2260.0	157.77	21.11
MEAN	.78	1.09	1.31	1.19	1.72	3.74	3.24	8.11	67.4	72.9	5.09	.70
MAX	1.0	1.3	1.5	1.5	2.4	7.9	5.4	214	345	320	25	1.0
MIN	.59	.95	1.1	1.0	1.2	1.2	1.4	.99	5.8	5.3	.93	.58
AC-FT	48	65	80	73	96	230	193	499	4010	4480	313	42

CAL YR 1978 TOTAL 16591.36 MEAN 45.5 MAX 1790 MIN .59 AC-FT 32910
WTR YR 1979 TOTAL 5108.07 MEAN 14.0 MAX 345 MIN .58 AC-FT 10130

07138000 ARKANSAS RIVER AT SYRACUSE KS--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967 to current year.

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
JUN 19...	1500	11	3300	169	5.0
JUL 11...	1230	26	2300	601	42
AUG 01...	1320	17	3500	110	5.0
SEP 19...	1230	.65	1000	30	.05

07138020 ARKANSAS RIVER AT KENDALL, KS

LOCATION.--Lat 37°55'48", long 101°32'56", in SW¼SE¼ sec.25, T.24 S., R.39 W., Hamilton County, Hydrologic Unit 11030001, on left upstream side of county road bridge, 0.25 mi (0.40 km) south of Kendall, and at mile 1,066.7 (1,716.3 km).

DRAINAGE AREA.--Not available at time of publication.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1979 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 3,130 ft (954 m) from topographic map.

REMARKS.--Records fair.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period, 323 ft^3/s (9.15 m^3/s) Aug. 27, 1979, gage height, 7.68 ft (2.341 m); no flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							---	.00	140	27	6.1	.00
2							---	.00	85	2.8	4.6	.00
3							---	.00	106	.39	3.8	.00
4							---	.00	175	.05	3.0	.00
5							---	.00	243	.01	1.6	.00
6							---	.00	176	22	1.3	.00
7							---	.00	125	28	.74	.00
8							---	.00	99	18	.59	.00
9							---	.00	85	83	.41	.00
10							---	.00	75	69	.31	.00
11							---	.00	73	18	.26	.00
12							---	.00	73	11	.07	.00
13							.90	.00	63	8.4	.00	.00
14							.74	.00	56	5.6	.00	.00
15							.59	.00	44	42	.00	.00
16							.59	.00	36	93	.00	.00
17							.46	.00	24	114	.00	.00
18							.41	.00	17	148	.00	.00
19							.36	.00	11	155	2.5	.00
20							.31	.00	6.6	203	.00	.00
21							.31	.00	5.1	145	.00	.00
22							.31	.00	3.0	118	.00	.00
23							.31	.00	2.1	82	.00	.00
24							.31	.00	1.5	60	13	.00
25							.15	.00	1.5	44	.50	.00
26							.05	.00	1.3	33	4.2	.00
27							.00	.00	.90	24	95	.00
28							.00	.00	.59	16	8.7	.00
29							.00	.00	.46	13	.36	.00
30							.00	.00	.20	10	.07	.00
31							---	28	---	7.8	.00	---
TOTAL							---	28.00	1729.25	1601.05	147.31	.00
MEAN							---	.90	57.6	51.6	4.75	.000
MAX							---	28	243	203	95	.00
MIN							---	.00	.20	.01	.00	.00
AC-FT							---	56	3430	3180	292	.00

07138062 ARKANSAS RIVER BELOW AMAZON DIVERSION, KS

LOCATION.--Lat 37°54'00", long 101°26'51", in NW¼NW¼ sec.12, T.25 S., R.38 W., Kearny County, Hydrologic Unit 11030001, on left bank at right end of Amazon Canal Headgate, 3.3 mi (5.3 km) west of Hartland, 10.1 mi (16.2 km) southwest of Lakin, and at mile 1,059.7 (1,705.1 km).

DRAINAGE AREA.--Not available at time of publication.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1977 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 3,080 ft (938.784 m) from topographic map.

REMARKS.--Records fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,040 ft³/s (57.8 m³/s) June 5, 1978, gage height, 5.34 ft (1.628 m); no flow for many days each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 199 ft³/s (5.636 m³/s) July 20, gage height, 3.64 ft (1.109 m); no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	3.9	1.8	2.7	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	2.4	13	1.9	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	2.3	2.7	1.5	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	2.2	2.3	1.2	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	2.2	2.1	1.0	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	2.1	3.0	.95	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	1.9	20	.84	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	1.8	12	.77	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	1.8	24	.72	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	1.8	33	.60	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	1.8	15	.54	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	14	9.3	.48	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	49	5.9	.31	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	46	3.7	.16	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	42	7.7	.11	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	35	46	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	28	81	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	22	110	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	16	150	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	13	151	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	10	136	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	7.9	96	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	6.3	56	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	5.2	34	.59	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	4.6	22	.13	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	3.7	16	.11	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	3.3	12	32	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	2.7	8.6	11	.00
29	.00	.00	.00	.00	---	.00	.00	.00	2.4	6.1	1.4	.00
30	.00	.00	.00	.00	---	.00	.00	3.1	2.1	4.8	.53	.00
31	.00	---	.00	.00	---	.00	---	.31	---	3.8	.08	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	3.41	337.4	1088.8	59.62	.00
MEAN	.000	.000	.000	.000	.000	.000	.000	.11	11.2	35.1	1.92	.000
MAX	.00	.00	.00	.00	.00	.00	.00	3.1	49	151	32	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	1.8	1.8	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	6.8	669	2160	118	.00

CAL YR 1978 TOTAL 3202.07 MEAN 8.77 MAX 964 MIN .00 AC-FT 6350
WTR YR 1979 TOTAL 1489.23 MEAN 4.08 MAX 151 MIN .00 AC-FT 2950

07138062 ARKANSAS RIVER BELOW AMAZON DIVERSION, KS--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			---	.00	.00	.00	.00	113	21	.15	7.5	1.0
2			---	.00	.00	.00	.00	37	20	2.3	7.2	.50
3			---	.00	.00	.00	.00	21	21	2.3	7.0	.10
4			---	.00	.00	.00	.00	15	87	.43	6.8	.00
5			---	.00	.00	.01	.00	14	964	34	6.8	.00
6			---	.00	.00	.00	.00	25	455	40	6.6	.00
7			---	.00	.00	.00	.00	26	86	33	6.6	.00
8			---	.00	.00	.00	.00	3.5	26	28	6.6	.00
9			---	.00	.00	.00	.00	3.4	4.7	25	6.4	.00
10			---	.00	.00	.00	.00	3.4	.02	23	6.4	.00
11			---	.00	.00	.00	.00	3.4	.00	24	6.4	.00
12			---	.00	.00	.00	.00	3.2	.00	70	6.2	.00
13			.00	.00	.00	.00	.00	3.3	.00	76	6.2	.00
14			.00	.00	.00	.00	.00	3.3	.00	80	6.2	.00
15			.00	.00	.00	.00	.57	3.2	.00	30	5.1	.00
16			.00	.00	.00	.00	7.8	14	7.0	17	4.1	.00
17			.00	.00	.00	.00	5.6	20	15	3.4	3.5	.00
18			.00	.00	.00	.00	2.6	19	23	2.4	2.9	.00
19			.00	.00	.00	.00	1.5	21	47	2.3	2.6	.00
20			.00	.00	.00	.00	.34	19	49	2.3	2.5	.00
21			.00	.00	.00	.00	.00	18	72	2.4	2.3	.00
22			.00	.00	.00	.00	.00	18	32	2.3	2.1	.00
23			.00	.00	.00	.00	.00	16	.18	2.3	1.8	.00
24			.00	.00	.29	.00	.00	14	.00	2.5	1.5	.00
25			.00	.00	.75	.00	.00	14	.00	3.0	1.3	.00
26			.00	.00	.56	.00	.00	16	.00	2.6	1.1	.00
27			.00	.00	.27	.00	.00	16	.00	2.5	1.1	.00
28			.00	.00	.06	.00	.00	16	.00	2.5	1.0	.00
29			.00	.00	---	.00	.00	36	.00	2.4	1.2	.00
30			.00	.00	---	.00	.64	31	.00	4.4	1.2	.00
31			.00	.00	---	.00	---	23	---	9.1	1.1	---
TOTAL			---	.00	1.93	.01	19.05	588.7	1929.90	531.58	129.3	1.60
MEAN			---	.000	.069	.000	.64	19.0	64.3	17.1	4.17	.053
MAX			---	.00	.75	.01	7.8	113	964	80	7.5	1.0
MIN			---	.00	.00	.00	.00	3.2	.00	.15	1.0	.00
AC-FT			---	.00	3.8	.02	38	1170	3830	1050	256	3.2

07138065 ARKANSAS RIVER AT LAKIN, KS

LOCATION.--Lat 37°55'30", long 101°15'15", in NW¼SE¼NE¼, sec.34, T.24 S., R.36 W., Kearny County, Hydrologic Unit 11030001, on left downstream side of bridge on State Highway 25, 0.75 mi (1.2 km) south of Lakin, and at mile 1,044.9 (1,681.2 km).

DRAINAGE AREA.--Not available at time of publication.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1978 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 2,990 ft (911 m) from topographic map.

REMARKS.--Records fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 845 ft^3/s (23.9 m^3/s) May 1, 1978, gage height, 6.84 ft (2.085 m), from floodmark; no flow many days.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 110 ft^3/s (3.12 m^3/s) July 21, gage height, 4.30 ft (1.311 m); no flow most days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	4.0	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.7	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.7	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.3	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.75	.67	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.0	.60	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.1	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	12	.00	.49	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	18	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	16	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	14	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	10	30	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	7.2	49	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	3.7	61	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	1.3	66	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	94	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	67	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	44	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	25	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	17	.20	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	12	.40	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	9.6	2.3	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	7.5	15	.00
29	.00	.00	.00	.00	---	.00	.00	.00	.00	5.9	1.8	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	5.1	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	4.7	.00	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	.00	82.20	499.55	35.26	.00
MEAN	.000	.000	.000	.000	.000	.000	.000	.000	2.74	16.1	1.14	.000
MAX	.00	.00	.00	.00	.00	.00	.00	.00	18	94	15	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	.00	163	991	70	.00

WTR YR 1979 TOTAL 617.01 MEAN 1.69 MAX 94 MIN .00 AC-FT 1220

07138065 ARKANSAS RIVER AT LAKIN, KS--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							---	284	4.0	.00	.00	.00
2							---	45	3.7	.00	.00	.00
3							---	21	8.1	.00	10	.00
4							---	11	56	2.8	3.3	.00
5							---	4.3	138	.00	2.2	.00
6							---	23	519	.65	.25	.00
7							.00	38	241	.00	.00	.00
8							.00	18	66	.00	.00	.00
9							.00	.00	14	.00	.00	.00
10							.00	.00	4.3	.00	.00	.00
11							.00	.00	1.8	.00	.00	.00
12							.00	.00	.82	.00	.00	.00
13							.00	.00	.60	.00	.00	.00
14							.00	.00	5.4	.00	.11	.00
15							.00	.00	48	.00	.06	.00
16							.00	.76	59	.00	.00	.00
17							.00	.00	117	.00	.00	.00
18							.00	.00	143	.00	.00	.00
19							.00	.00	148	.58	.00	.00
20							.00	.00	160	.17	.00	.00
21							.00	.00	189	.00	.00	.00
22							.00	.00	213	.00	.00	.00
23							.00	.00	15	.00	.00	.00
24							.00	.00	5.9	.00	.00	.00
25							.00	.00	1.4	.00	.00	.00
26							.00	.00	.82	.00	.00	.00
27							.00	.00	.25	.00	.00	.00
28							.00	.00	.00	.00	.00	.00
29							.00	.00	.00	.00	.00	.00
30							45	1.2	.00	.00	.00	.00
31							---	3.1	---	.00	.00	---
TOTAL							---	449.36	2163.09	4.20	15.92	.00
MEAN							---	14.5	72.1	.14	.51	.000
MAX							---	284	519	2.8	10	.00
MIN							---	.00	.00	.00	.00	.00
AC-FT							---	891	4290	8.3	32	.00

07138650 WHITEWOMAN CREEK NEAR LEOTI, KS

LOCATION.--Lat 38°28'52", long 101°29'16", in NW¼ sec.23, T.18 S., R.38 W., Wichita County, Hydrologic Unit 11030002, near center of span at downstream side of bridge on State Highway 96, 7 mi (11 km) west of Leoti, 0.8 mi (1.3 km) upstream from small right-bank tributary, and at mile 42.0 (67.6 km).

DRAINAGE AREA.--750 mi^2 (1,942 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is 3,319.79 ft (1,011.872 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1976, water-stage recorder at same site at datum 5.00 ft (1.524 m) higher.

REMARKS.--Records poor.

AVERAGE DISCHARGE.--13 years, 1.13 ft^3/s (0.032 m^3/s), 819 acre-ft/yr (1.01 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,600 ft^3/s (159 m^3/s) July 10, 1972, gage height, 18.10 ft (5.517 m), present datum; no flow most days.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 152 ft^3/s (4.30 m^3/s) July 22, gage height, 7.11 ft (2,167 m), no peak above base of 300 ft^3/s (8.50 m^3/s); no flow most days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.8	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.18	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	14	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	4.2	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.52	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	.00	.00	18.72	1.98	.00
MEAN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.60	.064	.000
MAX	.00	.00	.00	.00	.00	.00	.00	.00	.00	14	1.8	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	.00	.00	37	3.9	.00

CAL YR 1978 TOTAL 4.41 MEAN .012 MAX 1.5 MIN .00 AC-FT 8.7
WTR YR 1979 TOTAL 20.70 MEAN .057 MAX 14 MIN .00 AC-FT 41

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967 to current year.

REMARKS.--No flow on many days during period of record. Sediment samples are collected only at selected flow conditions.

07139500 ARKANSAS RIVER AT DODGE CITY, KS

LOCATION.--Lat 37°44'51", long 100°01'08", in NE¼NE¼ sec.35, T.26 S., R.25 W., Ford County, Hydrologic Unit 11030003, on right bank, 30 ft (9 m) downstream from Second Street Bridge in Dodge City, at mile 970.2 (1,561.1 km).

DRAINAGE AREA.--30,600 mi^2 (79,254 km^2), of which 5,583 mi^2 (14,460 km^2) is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1902 to September 1906 (published as "near Dodge"), September 1944 to current year. Monthly discharge only for some periods, published in WSP 1311. Gage-height records collected at same site at different datum 1909-1932 are contained in reports of U.S. Weather Bureau.

REVISED RECORDS.--WSP 1341: 1903(M), 1904, 1905(M), 1947(M).

GAGE.--Water-stage recorder. Datum of gage is 2,464.71 ft (751.244 m) National Geodetic Vertical Datum of 1929. Nov. 28, 1902, to Aug. 10, 1906, nonrecording gage at same site at datum about 8.00 ft (2.438 m) higher. Sept. 1 to Nov. 5, 1944, nonrecording gage and Nov. 6, 1944, to Sept. 30, 1975, recording gage both at present site and datum 3.00 ft (0.914 m) higher.

REMARKS.--Records poor. Flow moderately regulated since 1943 by John Martin Reservoir (see sta 07130000). Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

AVERAGE DISCHARGE.--39 years, 185 ft^3/s (5.239 m^3/s), 134,000 acre-ft/yr (165 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 82,000 ft^3/s (2,320 m^3/s) June 19, 1965, gage height, 15.68 ft (4.779 m); no flow at times in 1903, 1946, 1954, 1956, 1974-79.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 635 ft^3/s (18.0 m^3/s) July 23, gage height, 4.92 ft (1.500 m), no other peak above base of 500 ft^3/s (14.2 m^3/s); no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.05	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.06	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.88	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.80	.00	.00	.00	2.1	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	2.9	.00	.00	.00
10	.00	.00	.00	.00	.05	.00	1.1	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	1.8	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.01	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.21	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.75	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	9.6	.00	.00
16	.00	.00	.00	3.0	.00	.00	.00	.00	.00	3.7	.00	.00
17	.00	.00	.00	4.3	.00	.00	1.0	.23	.87	16	.00	.00
18	.00	.00	.00	.22	.00	.82	.00	.32	.00	.00	.00	.00
19	.00	.00	.00	.45	.01	.00	.00	.00	.00	.14	.00	.00
20	.00	.00	.00	.07	.01	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.02	.00	.12	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.51	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.05	.00	325	.00	.00
24	.00	.04	.00	.00	.00	.00	.00	.19	.00	164	.00	.00
25	.00	.21	.00	.00	.00	.00	.00	.00	.00	91	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	13	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.1	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	19	.00	.00
29	.00	.00	.00	.00	---	.00	.00	.00	.00	.64	.00	.00
30	.00	.00	.00	.00	---	.00	.00	20	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.00	.25	.00	8.57	5.32	.94	2.10	20.79	5.93	645.18	.00	.00
MEAN	.000	.008	.000	.28	.19	.030	.073	.67	.20	20.8	.000	.000
MAX	.00	.21	.00	4.3	1.8	.82	1.1	20	2.9	325	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.5	.00	17	11	1.9	4.3	41	12	1280	.00	.00

CAL YR 1978 TOTAL 627.98 MEAN 1.72 MAX 156 MIN .00 AC-FT 1250
WTR YR 1979 TOTAL 689.16 MEAN 1.89 MAX 325 MIN .00 AC-FT 1370

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1962 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1974 to June 1977.
WATER TEMPERATURES: October 1974 to September 1977.

REMARKS.--No flow on many days during period of record. Sediment samples are collected only at selected flow conditions.

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)
MAY					
30...	1305	.12	300	211	.07
JUL					
26...	1030	9.1	550	61	1.5

07139800 MULBERRY CREEK NEAR DODGE CITY, KS

LOCATION.--Lat 37°35'53", long 100°00'52", in NW¼ sec.24, T.28 S., R.25 W., Ford County, Hydrologic Unit 11030004, on right bank 75 ft (23 m) downstream from bridge on U.S. Highway 283, 9 mi (14 km) south of Dodge City, and 24 mi (39 km) above mouth.

DRAINAGE AREA.--73.8 mi^2 (191.1 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,509.96 ft (765.036 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair. Low flow frequently augmented by irrigation runoff.

AVERAGE DISCHARGE.--11 years, 1.19 ft^3/s (0.034 m^3/s), 862 acre-ft/yr (1.06 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,330 ft^3/s (37.7 m^3/s) Apr. 30, 1978, gage height, 12.07 ft (3.679 m); no flow for most days.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 110 ft^3/s (3.12 m^3/s) July 24, gage height, 5.57 ft (1.698 m); no peak above base of 100 ft^3/s (2.83 m^3/s); no flow for most days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.04	.01	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.12	.01	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.44	.01	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.72	.16	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.66	.14	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.60	.14	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.06	.02	.00
10	.00	.00	.00	.00	.14	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	3.4	.00	.00	.00	.00	.26	.04	.00
12	.00	.00	.00	.00	12	.00	.00	.00	.00	.36	.20	.00
13	.00	.00	.00	.00	.21	.00	.00	.00	.00	.20	.16	.00
14	.00	.00	.00	.00	.01	.00	.00	.00	.00	.16	.14	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.10	.02	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.44	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.02	.00	.48	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.08	.00	.40	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.44	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	1.0	.00	.48	.00	.00
21	.00	.00	.00	.00	.00	.19	.00	1.5	.00	.40	.00	.00
22	.00	.00	.00	.00	.00	.40	.00	.06	.00	.28	.00	.00
23	.00	.00	.00	.00	.00	.04	.00	.00	.00	7.3	.14	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	59	.26	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	7.5	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	12	.00	.00
29	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	1.0	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.00	.00	.00	.00	15.76	.63	.00	3.66	.00	92.49	1.45	.00
MEAN	.000	.000	.000	.000	.56	.020	.000	.12	.000	2.98	.047	.000
MAX	.00	.00	.00	.00	12	.40	.00	1.5	.00	59	.26	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	31	1.2	.00	7.3	.00	183	2.9	.00

CAL YR 1978 TOTAL 911.43 MEAN 2.50 MAX 263 MIN .00 AC-FT 1810
WTR YR 1979 TOTAL 113.99 MEAN .31 MAX 59 MIN .00 AC-FT 226

07139800 MULBERRY CREEK NEAR DODGE CITY, KS--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

REMARKS.--No flow on many days during period of record. Sediment samples are collected only at selected flow conditions.

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
MAY					
30...	1130	1.3	200	3810	13

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	SEDI-MENT, SUS-PENDED (MG/L)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM
MAY						
30...	1130	3810	87	98	99	100

07140000 ARKANSAS RIVER NEAR KINSLEY, KS

LOCATION.--Lat 37°55'33", long 99°22'31", in SW¼SE¼ sec.26, T.24 S., R.19 W., Edwards County, Hydrologic Unit 11030004, on right bank at upstream side of bridge on U.S. Highway 50, 2.0 mi (3.2 km) east of Kinsley, and at mile 920.3, (1,480.8 km).

DRAINAGE AREA.--31,066 mi^2 (80,461 km^2), of which 5,660 mi^2 (14,660 km^2) is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1944 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,141.64 ft (652.772 km) National Geodetic Vertical Datum of 1929. Prior to Nov. 10, 1944, nonrecording gage and Nov. 10, 1944 to Dec. 31, 1975 water-stage recorder, both at present site and datum 3.00 ft (0.914 m) higher.

REMARKS.--Records good. Flow moderately regulated by John Martin Reservoir (see sta 07130000). Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

AVERAGE DISCHARGE.--35 years, 174 ft^3/s (4.928 m^3/s), 126,100 acre-ft/yr (155 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 49,800 ft^3/s (1,410 m^3/s) June 21, 1965, gage height, 17.60 ft (4.450 m) present datum; minimum, no flow July 28, Aug. 9, 11, 1977, Sept. 1-4, 6-8, 23-25, 1979, result of sand pit operation 0.5 mile (0.80 km) upstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 248 ft^3/s (7.02 m^3/s) July 26, gage height, 5.70 ft (1.737 m), no peak above base of 500 ft^3/s (14.2 m^3/s); minimum, no flow Sept. 1-4, 6-8, 23-25, result of sand pit operation 0.5 mi (0.8 km) upstream.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	7.9	15	11	15	25	36	21	29	12	63	4.8
2	14	8.3	15	13	15	25	35	29	29	12	55	2.2
3	13	8.8	13	15	14	25	35	31	28	11	48	2.2
4	13	9.3	12	15	15	23	36	33	25	10	43	3.3
5	12	8.7	13	14	16	24	35	33	20	9.2	40	6.5
6	12	9.7	14	12	18	23	34	31	19	8.1	36	2.6
7	11	9.7	12	9.0	16	23	35	30	18	7.8	34	1.6
8	7.1	10	11	8.0	17	22	33	29	19	8.4	31	1.9
9	7.2	10	11	9.0	14	24	33	28	23	12	28	6.3
10	8.1	10	13	10	17	24	34	27	24	11	26	5.4
11	9.3	10	14	12	17	25	36	27	22	10	25	4.3
12	9.0	11	15	11	20	24	38	27	17	9.3	20	2.5
13	8.8	11	16	10	22	23	39	27	16	9.0	18	4.8
14	8.8	11	15	9.0	25	23	38	27	14	8.5	15	5.9
15	8.8	12	16	9.0	28	23	36	26	16	7.9	14	5.5
16	7.8	13	17	10	19	24	36	25	19	8.8	14	5.4
17	5.1	13	15	11	17	24	34	23	18	13	15	5.2
18	7.0	13	16	13	21	31	33	25	17	18	17	5.3
19	7.9	14	17	15	26	33	32	24	16	15	16	5.1
20	8.5	14	15	16	30	32	31	26	15	13	15	4.8
21	8.6	14	15	16	29	34	30	36	14	11	15	1.2
22	8.1	14	14	17	31	36	30	50	11	9.9	14	1.8
23	7.7	15	14	18	30	38	30	54	14	15	13	1.1
24	4.6	14	14	19	28	41	29	48	18	27	13	.69
25	6.4	15	14	30	27	41	28	44	27	142	12	.91
26	6.9	16	14	18	26	39	28	42	23	202	12	4.2
27	8.4	16	14	16	25	38	26	39	20	122	11	4.5
28	8.7	16	14	14	25	37	25	36	18	89	11	4.9
29	8.6	16	14	13	---	37	27	33	16	71	11	4.6
30	8.1	15	12	12	---	35	23	32	14	61	11	1.5
31	7.9	---	8.5	14	---	35	---	31	---	80	9.2	---
TOTAL	277.4	365.4	432.5	419.0	603	911	975	994	579	1043.9	705.2	111.00
MEAN	8.95	12.2	14.0	13.5	21.5	29.4	32.5	32.1	19.3	33.7	22.7	3.70
MAX	15	16	17	30	31	41	39	54	29	202	63	6.5
MIN	4.6	7.9	8.5	8.0	14	22	23	21	11	7.8	9.2	.69
AC-FT	550	725	858	831	1200	1810	1930	1970	1150	2070	1400	220

CAL YR 1978 TOTAL 23623.50 MEAN 64.7 MAX 2790 MIN 4.6 AC-FT 46860
WTR YR 1979 TOTAL 7416.40 MEAN 20.3 MAX 202 MIN .69 AC-FT 14710

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1961 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1960 to September 1967, October 1968 to September 1969, November 1974 to September 1975.
SUSPENDED-SEDIMENT DISCHARGE: October 1960 to September 1975.

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR UCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
MAY					
22...	1220	51	700	390	55
JUL					
24...	1225	14	1050	58	2.2
25...	1700	162	360	629	275

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	SEDI-MENT, SUS-PENDED (MG/L)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM
JUL							
25...	1700	629	87	93	95	98	100

07140700 GUZZLERS GULCH NEAR NESS CITY, KS

LOCATION.--Lat 38°17'40", long 99°57'10", in SW¼SW¼ sec.23, T.20 S., R.24 W., Ness County, Hydrologic Unit 11030005, on right bank, 30 ft (9 m) downstream from highway bridge, 5 mi (8 km) upstream from mouth, and 11 mi (18 km) southwest of Ness City.

DRAINAGE AREA.--58.2 mi^2 (150.7 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1961 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 2,240 ft (683 m); from topographic map.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--18 years (water years 1962-79), 2.13 ft^3/s (0.060 m^3/s), 1,540 acre-ft/yr (1.90 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,050 ft^3/s (86.4 m^3/s) July 29, 1971, gage height, 14.29 ft (4.356 m), from rating curve extended above 1,900 ft^3/s (53.8 m^3/s); no flow most days.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 75 ft^3/s (2.12 m^3/s) Apr. 11, gage height 3.78 ft (1.152 m), no peak above base of 75 ft^3/s (2.12 m^3/s); no flow most days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.1	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.12	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.15	.00	.00	23	.00	.00	.00	.00
11	.00	.00	.00	.00	2.9	.00	48	11	.00	.00	.00	.00
12	.00	.00	.00	.00	3.3	.00	24	6.0	.00	.00	.00	.00
13	.00	.00	.00	.01	2.2	.00	8.6	2.0	.00	.00	.00	.00
14	.00	.00	.00	.00	6.4	.00	3.6	.72	.00	.00	.00	.00
15	.00	.00	.00	.00	3.5	.00	.59	.03	.00	.00	.00	.00
16	.00	.00	.00	.00	3.1	.00	.16	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	1.3	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.04	.75	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.08	7.2	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.15	19	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.13	13	.99	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.05	3.7	29	.00	.00	.00	3.2	.00	.00
23	.00	.00	.00	.00	1.2	20	.00	.00	.00	5.3	.00	.00
24	.00	.00	.00	.00	.16	8.2	.00	.00	.00	1.4	.00	.00
25	.00	.00	.00	.00	.00	3.8	.00	.00	.00	.33	.00	.00
26	.00	.00	.00	.00	.00	1.1	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.72	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.35	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.35	.00
30	.00	.00	.00	.00	---	.00	.00	.02	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.00	.00	.00	.46	67.86	64.16	84.95	42.77	.00	10.23	3.57	.00
MEAN	.000	.000	.000	.015	2.42	2.07	2.83	1.38	.000	.33	.12	.000
MAX	.00	.00	.00	.15	19	29	48	23	.00	5.3	3.1	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.9	135	127	168	85	.00	20	7.1	.00

CAL YR 1978 TOTAL 1299.16 MEAN 3.56 MAX 654 MIN .00 AC-FT 2580
WTR YR 1979 TOTAL 274.00 MEAN .75 MAX 48 MIN .00 AC-FT 543

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.

REMARKS.--No flow on many days during period of record. Sediment samples are collected only at selected flow conditions.

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
MAR 27...	1130	30	300	3870	313

07141200 PAWNEE RIVER NEAR LARNED, KS

* LOCATION.--Lat 38°12'00", long 99°20'50", in NW¼NW¼ sec.30, T.21 S., R.18 W., Pawnee County, Hydrologic Unit 11030005, on right bank, 0.8 mi (1.3 km) north of U.S. Highway 156, 14 mi (23 km) west of Larned, and at mile 24.8 (39.9 km).

DRAINAGE AREA.--2,148 mi^2 (5,563 km^2), of which 138 mi^2 (357 km^2) is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April to September 1924 (gage heights and discharge measurements only), October 1924 to current year. Monthly discharge only for some periods, published in WSP 1311.

REVISED RECORDS.--WSP 1177: 1949. WSP 1241: 1927-28(M), 1935, 1940, 1943. WSP 1341: Drainage area.

GAGE.--Water-stage recorder. Concrete control since June 2, 1959. Datum of gage is 2,040.90 ft (622.066 m) National Geodetic Vertical Datum of 1929. See WSP 1921 for history of changes prior to June 2, 1959.

REMARKS.--Records fair. Diversions for irrigation above station.

AVERAGE DISCHARGE.--55 years, 73.4 ft^3/s (2.079 m^3/s), 53,180 acre-ft/yr (65.6 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,300 ft^3/s (462 m^3/s) July 28, 1958, gage height, 28.22 ft (8.601 m); site and datum then in use, or 22.9 ft (6.98 m), present site and datum; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 900 ft^3/s (25.5 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Mar. 24	0800	1,320	37.4	8.24	2.512
July 25	2200	* 9,780	277	22.13	6.745

Minimum discharge, no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	.00	.00	.00	.00	5.9	6.6	1.1	.00	.00	198	4.0
2	11	.00	.00	.00	.00	4.0	4.7	1.1	.00	.00	197	4.1
3	9.3	.00	.00	.00	.00	3.4	3.7	.82	.00	.00	157	8.6
4	8.5	.00	.00	.00	.00	2.6	3.4	.62	.00	.00	220	7.2
5	7.8	.00	.00	.00	.00	2.1	2.8	.50	.00	.00	231	4.6
6	7.2	.00	.00	.00	.00	1.8	2.4	.37	.00	.00	111	3.7
7	6.2	.00	.00	.00	.00	1.6	2.1	.31	.00	.00	63	3.2
8	5.1	.00	.00	.00	.00	1.5	1.7	.12	.00	.00	43	2.3
9	4.1	.00	.00	.00	.00	1.5	1.6	.06	.00	.00	33	2.0
10	2.2	.00	.00	.00	.00	1.3	1.7	.00	.00	.00	26	1.7
11	1.7	.00	.00	.00	.00	.91	2.8	.00	.00	.00	24	1.1
12	.74	.00	.00	.00	.00	.82	5.5	.00	.00	.00	20	.94
13	.28	.00	.00	.00	.00	.72	180	.00	.00	.00	17	1.1
14	.00	.00	.00	.00	.00	.50	166	.00	.00	.00	13	1.1
15	.00	.00	.00	.00	.00	.37	92	.00	.00	.00	14	1.1
16	.00	.00	.00	.00	.00	.19	44	.00	.00	.00	16	1.1
17	.00	.00	.00	.00	.00	.06	24	.00	.00	.00	15	1.1
18	.00	.00	.00	.00	.00	.31	19	.00	.00	166	13	1.1
19	.00	.00	.00	.00	.50	.37	13	.00	.00	55	13	.92
20	.00	.00	.00	.00	2.0	.31	9.0	.00	.00	26	10	.96
21	.00	.00	.00	.00	8.0	.31	6.3	.00	.00	14	7.8	.96
22	.00	.00	.00	.00	76	606	14	.00	.00	14	6.9	.85
23	.00	.00	.00	.00	70	1120	23	.00	.00	2200	6.2	.82
24	.00	.00	.00	.00	64	1170	18	.00	.00	5080	6.0	.82
25	.00	.00	.00	.00	58	310	13	.00	.00	9070	6.0	.82
26	.00	.00	.00	.00	36	105	9.7	.00	.00	9120	5.1	.82
27	.00	.00	.00	.00	16	45	6.6	.00	.00	4980	5.9	.72
28	.00	.00	.00	.00	9.3	26	4.2	.00	.00	1900	6.1	.72
29	.00	.00	.00	.00	---	16	2.8	.00	.00	415	4.7	.72
30	.00	.00	.00	.00	---	11	1.8	.00	.00	269	4.0	.72
31	.00	---	.00	.00	---	8.7	---	.00	---	238	4.0	---
TOTAL	77.12	.00	.00	.00	339.80	3448.27	685.4	5.00	.00	33547.00	1496.7	59.89
MEAN	2.49	.000	.000	.000	12.1	111	22.8	.16	.000	1082	48.3	2.00
MAX	13	.00	.00	.00	76	1170	180	1.1	.00	9120	231	8.6
MIN	.00	.00	.00	.00	.00	.06	1.6	.00	.00	.00	4.0	.72
AC-FT	153	.00	.00	.00	674	6840	1360	9.9	.00	66540	2970	119

CAL YR 1978 TOTAL 6865.76 MEAN 18.8 MAX 862 MIN .00 AC-FT 13620
WTR YR 1979 TOTAL 39659.18 MEAN 109 MAX 9120 MIN .00 AC-FT 78660

07141200 PAWNEE RIVER NEAR LARNED KS--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1961 to current year.

REMARKS.--No flow on many days during period of record. Sediment samples are collected only at selected flow conditions.

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
OCT					
02...	1300	10	240	381	11
FEB					
26...	1230	45	240	164	20
MAR					
16...	1440	.21	260	268	.15
22...	1525	918	200	2940	7290
JUL					
23...	2245	3627	110	1720	16800
24...	1930	6360	170	1260	21600

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	SEDI-MENT, SUS-PENDED (MG/L)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM
MAR							
22...	1525	2940	72	82	90	99	100
JUL							
24...	1930	1260	81	93	99	100	--

07141300 ARKANSAS RIVER AT GREAT BEND, KS

LOCATION.--Lat 38°21'11", long 98°45'50", in SW¼NW¼SE¼ sec.33, T.19 S., R.13 W., Barton County, Hydrologic Unit 11030004, at downstream side of bridge on U.S. Highway 281, 0.5 mi (0.8 km) south of Great Bend, 4.5 mi (7.2 km) upstream from Walnut Creek, and at mile 873.2 (1,405.0 km).

DRAINAGE AREA.--34,356 mi^2 (88,982 km^2), of which 6,002 mi^2 (15,545 km^2) is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1940 to current year. Fragmentary, gage-height records collected at same site, at datum 3.0 ft (0.9 m) higher, 1906, 1908-12, are contained in reports of U.S. Weather Bureau.

REVISED RECORDS.--WSP 1341: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,835.19 ft (560.777 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Oct. 1, 1975 at datum 4.00 ft higher.

REMARKS.--Records good. Flow moderately regulated since 1943 by John Martin Reservoir (see sta 07130000). Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals, diversions for irrigation and to Cheyenne Bottoms State Waterfowl Refuge, and return flow from irrigated areas.

AVERAGE DISCHARGE.--39 years, 342 ft^3/s (9.685 m^3/s), 247,800 acre-ft/yr (306 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,800 ft^3/s (787 m^3/s) June 23, 1965, gage height, 13.10 ft (3.993 m); maximum gage height, 13.18 ft (4.017 m) June 23, 1965; no flow at times in 1940, 1946, 1956.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known prior to June 23, 1965, and since at least 1895, about 11.7 ft (3.57 m) in June 1921, from reports of U.S. Weather Bureau (discharge not determined).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,910 ft^3/s (139 m^3/s) July 29, gage height, 12.81 ft (3.904 m), no other peak above base of 1,300 ft^3/s (36.8 m^3/s); minimum discharge, 0.90 ft^3/s (0.025 m^3/s) Oct. 11, Nov. 28, 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.8	4.5	3.3	1.5	3.5	88	186	28	16	9.9	963	23
2	6.2	6.2	3.6	3.0	4.5	63	159	30	16	9.5	1090	22
3	6.2	6.5	5.2	5.5	5.0	45	155	52	16	9.1	842	22
4	5.8	7.2	5.5	4.8	5.0	34	142	52	17	8.7	586	21
5	5.2	6.9	3.6	4.8	5.0	24	134	52	15	8.8	447	20
6	4.8	7.2	4.8	4.8	6.0	13	121	54	13	10	395	20
7	4.8	7.2	5.2	4.5	6.0	6.2	119	60	13	9.9	311	20
8	4.8	6.5	5.8	4.5	6.0	4.8	110	67	14	9.3	251	19
9	5.2	6.5	5.2	3.9	6.0	20	107	58	16	8.4	211	20
10	5.2	6.5	6.2	3.6	7.2	22	105	29	16	8.3	185	18
11	3.0	6.5	6.2	3.6	6.9	22	105	25	15	8.0	167	17
12	2.7	6.5	5.8	3.5	6.9	22	103	25	14	8.0	140	16
13	3.6	6.5	5.2	4.0	6.9	22	97	24	20	7.6	119	15
14	4.5	6.5	5.2	3.5	6.9	18	90	22	22	7.4	101	15
15	5.2	6.5	5.2	3.5	7.2	6.9	142	22	16	7.3	89	16
16	5.2	6.9	4.8	3.6	7.6	5.2	159	21	14	9.4	81	16
17	4.8	6.9	4.5	3.9	5.2	4.5	130	20	13	11	72	13
18	4.5	6.9	4.8	4.8	5.2	5.8	107	22	11	9.1	63	12
19	4.5	7.2	4.8	6.2	6.9	4.5	94	28	9.9	9.5	58	12
20	4.2	7.2	4.5	6.9	6.9	5.5	86	29	10	8.3	56	11
21	4.2	6.5	4.5	6.5	7.2	5.8	78	26	11	7.8	52	12
22	4.5	6.2	5.5	6.2	10	5.2	77	21	9.4	6.7	46	11
23	4.5	6.2	4.8	6.2	26	91	71	20	11	8.7	40	11
24	5.2	5.8	4.5	5.5	43	646	68	19	11	587	36	10
25	5.5	6.9	4.2	6.5	146	1010	66	19	11	3070	36	10
26	5.8	7.2	3.0	6.5	179	755	64	18	11	3850	33	9.8
27	5.5	6.9	2.7	5.8	150	468	64	18	10	4150	30	9.4
28	3.9	4.2	2.7	5.8	112	343	64	17	10	4670	28	8.6
29	4.8	3.0	3.9	4.5	---	279	62	17	10	4660	26	9.9
30	3.9	3.6	3.3	3.5	---	232	52	17	10	2090	23	10
31	2.7	---	3.0	2.5	---	202	---	17	---	1090	23	---
TOTAL	146.7	189.3	141.5	143.9	794.0	4469.4	3117	929	401.3	24367.7	6600	449.7
MEAN	4.73	6.31	4.56	4.64	28.4	144	104	30.0	13.4	786	213	15.0
MAX	6.2	7.2	6.2	6.9	179	1010	186	67	22	4670	1090	23
MIN	2.7	3.0	2.7	1.5	3.5	4.5	52	17	9.4	6.7	23	8.6
AC-FT	291	375	281	285	1570	8870	6180	1840	796	48330	13090	892

CAL YR 1978 TOTAL 27087.6 MEAN 74.2 MAX 1400 MIN 2.0 AC-FT 53730
WTR YR 1979 TOTAL 41749.5 MEAN 114 MAX 4670 MIN 1.5 AC-FT 82810

07141780 WALNUT CREEK NEAR RUSH CENTER, KS

LOCATION.--Lat 38°28'07", long 99°22'07", in NE¼SW¼SE¼ sec.24, T.18 S., R.19 W., Rush County, Hydrologic Unit 11030008, on left bank at downstream side of bridge on State Highway 96, 3.0 mi (4.8 km) west of Rush Center.

DRAINAGE AREA.--1,256 mi^2 (3,253 km^2), of which 104 mi^2 (269 km^2) is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1969 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,983.99 ft (604.720 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Occasional low-flow diversions for irrigation.

AVERAGE DISCHARGE.--10 years, 25.4 ft^3/s (0.719 m^3/s), 18,400 acre-ft/yr (22.7 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,020 ft^3/s (142 m^3/s) June 14, 1970, gage height, 24.89 ft (7.586 m); no flow for many days.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft^3/s (28.3 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
May 2	1130	1,550	43.9	15.74	4.798
July 24	1230	* 2,730	77.3	19.55	5.959

Minimum discharge, no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	26	18	7.6	2.4	.00	2.3	24
2	.00	.00	.00	.00	.00	24	17	863	2.3	.00	1.9	14
3	.00	.00	.00	.00	.00	24	19	53	2.2	.00	1.8	7.0
4	.00	.00	.00	.00	.00	19	18	18	1.9	.00	6.0	4.8
5	.00	.00	.00	.00	.00	18	16	9.2	1.5	.00	18	3.4
6	.00	.00	.00	.00	.00	17	16	6.0	1.1	.00	7.3	2.4
7	.00	.00	.00	.00	.00	17	16	2.9	.72	.00	3.4	2.1
8	.00	.00	.00	.00	.00	15	15	1.5	.76	.00	2.1	1.7
9	.00	.00	.00	.00	.00	14	15	.80	.67	.00	1.8	.74
10	.00	.00	.00	.00	.00	13	14	.62	.41	.00	1.5	.23
11	.00	.00	.00	.00	.00	11	13	.50	.38	.00	.77	.07
12	.00	.00	.00	.00	.00	9.4	117	64	.57	.00	.14	.05
13	.00	.00	.00	.00	.00	8.9	275	81	.65	.00	.01	.02
14	.00	.00	.00	.00	.00	8.5	94	39	.62	.00	.01	.00
15	.00	.00	.00	.00	.00	8.4	49	23	.35	.00	28	.00
16	.00	.00	.00	.00	.00	8.6	32	16	.18	.00	189	.00
17	.00	.00	.00	.00	.00	8.0	24	13	.10	.00	37	.00
18	.00	.00	.00	.00	.00	8.1	19	9.8	.03	.00	12	.00
19	.00	.00	.00	.00	.00	7.0	16	8.0	.00	9.8	5.2	.00
20	.00	.00	.00	.00	.00	6.6	14	6.8	.00	39	5.4	.00
21	.00	.00	.00	.00	11	62	14	6.3	.00	9.8	3.1	.00
22	.00	.00	.00	.00	113	603	16	5.8	.00	4.0	1.9	.00
23	.00	.00	.00	.00	487	545	17	5.4	.00	1230	1.5	.00
24	.00	.00	.00	.00	254	567	15	5.0	.00	2280	2.0	.00
25	.00	.00	.00	.00	140	306	12	4.6	.00	523	1.1	.00
26	.00	.00	.00	.00	61	90	11	4.2	.00	82	1.0	.00
27	.00	.00	.00	.00	46	53	10	3.7	.00	35	.66	.00
28	.00	.00	.00	.00	29	37	9.8	3.4	.00	19	.61	.00
29	.00	.00	.00	.00	---	30	8.9	3.3	.00	11	.53	.00
30	.00	.00	.00	.00	---	25	8.3	2.9	.00	7.3	.34	.00
31	.00	---	.00	.00	---	21	---	2.5	---	3.8	.28	---
TOTAL	.00	.00	.00	.00	1141.00	2610.5	939.0	1270.82	16.84	4253.70	336.65	60.51
MEAN	.000	.000	.000	.000	40.8	84.2	31.3	41.0	.56	137	10.9	2.02
MAX	.00	.00	.00	.00	487	603	275	863	2.4	2280	189	24
MIN	.00	.00	.00	.00	.00	6.6	8.3	.50	.00	.00	.01	.00
AC-FT	.00	.00	.00	.00	2260	5180	1860	2520	33	8440	668	120

CAL YR 1978 TOTAL 6626.26 MEAN 18.2 MAX 1680 MIN .00 AC-FT 13140
WTR YR 1979 TOTAL 10629.02 MEAN 29.1 MAX 2280 MIN .00 AC-FT 21080

07141900 WALNUT CREEK AT ALBERT, KS

LOCATION.--Lat 38°27'40", long 99°00'50", in SW¼NW¼NW¼ sec.29, T.18 S., R.15 W., Barton County, Hydrologic Unit 11030008, at downstream side of highway bridge, 0.2 mi (0.3 km) north of Albert, 14 mi (22.5 km) northwest of Great Bend, and at mile 43.0 (69.2 km).

DRAINAGE AREA.--1,410 mi² (3,652 km²), approximately, of which 104 mi² (269 km²) is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1958 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,897.37 ft (578.318 m) National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark).

REMARKS.--Records fair.

AVERAGE DISCHARGE.--21 years, 58.5 ft³/s (1.657 m³/s), 42,380 acre-ft/yr (52.3 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,700 ft³/s (360 m³/s) Sept. 22, 1959, gage height, 25.75 ft (7.849 m); no flow at times in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known prior to July 1958 and since at least 1908, 21.3 ft (6.49 m) in August 1927, from floodmark and information by local residents (discharge not determined, but due to levees built in 1934 is substantially greater than indicated by current rating).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft³/s (28.3 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 24	1400	2,470	70.0	22.39	6.824
May 2	1200	* 2,870	81.3	23.76	7.242
July 26	0200	1,640	46.4	18.78	5.724

Minimum discharge, no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	30	14	1.7	.48	.00	5.6	.39
2	.00	.00	.00	.00	.00	26	13	2340	.33	.00	4.2	.25
3	.00	.00	.00	.00	.00	22	11	2220	.23	.00	3.2	.20
4	.00	.00	.00	.00	.00	21	11	471	.21	.00	2.2	.17
5	.00	.00	.00	.00	.00	19	10	59	.17	.00	2.0	5.6
6	.00	.00	.00	.00	.00	10	8.3	26	.18	.00	1.9	4.2
7	.00	.00	.00	.00	.00	8.9	7.2	16	.15	.00	2.3	3.5
8	.00	.00	.00	.00	.00	11	6.2	12	.12	.00	6.4	3.0
9	.00	.00	.00	.00	.00	7.8	5.7	9.8	.14	.00	3.8	2.7
10	.00	.00	.00	.00	.00	5.0	5.4	7.4	.12	.00	2.6	1.9
11	.00	.00	.00	.00	.00	4.3	6.4	6.2	.09	.00	2.3	1.6
12	.00	.00	.00	.00	.00	4.2	6.6	5.0	.06	.03	3.5	1.0
13	.00	.00	.00	.00	.00	3.4	6.7	11	.06	.00	3.0	.75
14	.00	.00	.00	.00	.00	3.2	207	155	.08	.00	2.6	.36
15	.00	.00	.00	.00	.00	3.3	80	68	.08	.00	2.4	.28
16	.00	.00	.00	.00	.00	3.6	39	30	.06	.60	1.4	.24
17	.00	.00	.00	.00	.00	3.8	24	16	.03	1.7	92	.17
18	.00	.00	.00	.00	.00	4.6	14	11	.01	.26	42	.09
19	.00	.00	.00	.00	.00	30	9.5	7.8	.00	.23	20	.03
20	.00	.00	.00	.00	.00	53	6.8	7.0	.00	.18	7.6	.00
21	.00	.00	.00	.00	.00	25	5.1	5.2	.00	.13	4.1	.00
22	.00	.00	.00	.00	2.0	1010	4.2	4.1	.00	.10	3.1	.00
23	.00	.00	.00	.00	504	2280	3.8	3.1	.00	.10	2.4	.00
24	.00	.00	.00	.00	871	2450	3.0	2.6	.00	493	2.0	.00
25	.00	.00	.00	.00	352	2180	3.3	1.9	.00	1410	1.6	.00
26	.00	.00	.00	.00	162	633	3.5	1.9	.01	1250	1.2	.00
27	.00	.00	.00	.00	67	99	3.2	2.0	.20	140	.85	.00
28	.00	.00	.00	.00	37	47	2.6	1.5	.13	41	.75	.00
29	.00	.00	.00	.00	---	30	2.2	1.3	.03	23	.75	.00
30	.00	.00	.00	.00	---	20	1.6	1.2	.00	12	.54	.00
31	.00	---	.00	.00	---	16	---	.80	---	7.2	.75	---
TOTAL	.00	.00	.00	.00	1995.00	9064.1	524.3	5505.50	2.97	3379.53	229.04	26.43
MEAN	.000	.000	.000	.000	71.3	292	17.5	178	.099	109	7.39	.88
MAX	.00	.00	.00	.00	871	2450	207	2340	.48	1410	92	5.6
MIN	.00	.00	.00	.00	.00	3.2	1.6	.80	.00	.00	.54	.00
AC-FT	.00	.00	.00	.00	3960	17980	1040	10920	5.9	6700	454	52

CAL YR 1978 TOTAL 6215.19 MEAN 17.0 MAX 1390 MIN .00 AC-FT 12330
WTR YR 1979 TOTAL 20726.87 MEAN 56.8 MAX 2450 MIN .00 AC-FT 41110

07141900 WALNUT CREEK AT ALBERT KS--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1962 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1963 to September 1969, October 1970 to September 1975.
SUSPENDED-SEDIMENT DISCHARGE. October 1963 to September 1975.

REMARKS.--No flow on many days during period of record. Sediment samples are collected only at selected flow conditions.

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
MAR					
27...	1120	120	275	1280	415
MAY					
08...	0800	4.4	470	96	1.1

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	SEDI-MENT, SUS-PENDED (MG/L)	BED MAT. FALL DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .125 MM	BED MAT. FALL DIAM. % FINER THAN .250 MM	BED MAT. FALL DIAM. % FINER THAN .500 MM	BED MAT. FALL DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM
MAY											
08...	0800	96	64	66	67	80	84	90	94	95	100

07142300 RATTLESNAKE CREEK NEAR MACKSVILLE, KS

LOCATION.--Lat 37°52'20", long 98°52'30", in SW¼SW¼ sec.16, T.25 S., R.14 W., Stafford County, Hydrologic Unit 11030009, at downstream side of highway bridge, 8 mi (13 km) southeast of Macksville, and 87.5 mi (140.8 km) upstream from mouth.

DRAINAGE AREA.--784 mi^2 (2,030 km^2), of which about 428 mi^2 (1,110 km^2) is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1959 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,963.46 ft (598.463 m), from Stafford County bench mark. Prior to July 14, 1960, nonrecording gage and crest-stage gages at same site and datum.

REMARKS.--Records good except those for winter periods, which are poor.

AVERAGE DISCHARGE.--20 years, 36.3 ft^3/s (1.028 m^3/s), 26,300 acre-ft/yr (32.4 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,700 ft^3/s (501 m^3/s) Sept. 26, 1973, gage height, 11.02 ft (3.359 m); minimum, 0.10 ft^3/s (0.022 m^3/s) Sept. 20, 1968.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 373 ft^3/s (10.6 m^3/s) July 28, gage height, 7.19 ft (2.192 m), no other peak above base of 100 ft^3/s (2.83 m^3/s); minimum discharge, 6.2 ft^3/s (0.18 m^3/s) Sept. 18-21.

DISCHARGE, STREAM (CUBIC FEET PER SECOND), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	10	14	12	10	21	29	25	21	15	30	11
2	11	10	14	11	10	21	28	27	21	14	27	11
3	11	13	14	11	10	24	29	28	21	13	24	9.9
4	10	9.2	14	10	10	22	29	28	20	13	22	9.7
5	10	9.5	14	10	10	22	29	26	20	14	20	9.6
6	10	10	14	10	11	22	29	25	22	21	18	9.1
7	10	10	13	10	11	22	28	25	29	19	17	8.7
8	10	11	13	10	11	22	28	24	25	19	16	8.2
9	10	11	14	10	12	24	27	23	25	17	15	8.1
10	10	11	14	10	12	24	28	24	25	17	15	7.7
11	10	11	15	11	13	24	28	24	25	16	17	7.3
12	10	11	14	11	14	24	27	23	23	15	16	7.4
13	9.2	11	14	11	15	23	26	22	22	13	16	7.6
14	9.2	12	14	12	15	22	27	22	20	13	15	7.5
15	9.8	12	14	13	16	22	26	22	19	12	15	8.1
16	10	12	14	14	18	22	26	21	18	15	15	8.0
17	9.8	12	14	16	19	22	26	20	18	15	14	7.3
18	9.5	12	14	16	21	30	26	21	18	14	13	6.8
19	9.2	12	14	17	23	32	26	22	17	13	13	6.6
20	9.5	12	14	18	22	29	27	22	16	13	13	6.5
21	9.2	12	14	18	22	27	26	25	16	12	13	6.4
22	9.5	12	14	17	23	30	26	27	15	12	12	7.0
23	9.2	12	15	17	24	30	26	27	17	18	11	6.9
24	9.2	12	14	15	23	29	25	34	19	19	12	6.9
25	9.5	13	15	14	22	28	26	29	20	38	15	6.8
26	13	14	15	13	22	28	25	28	18	35	14	6.9
27	12	14	14	11	21	27	25	26	18	92	14	6.6
28	11	14	14	11	22	27	24	23	17	295	14	6.5
29	10	14	14	11	---	26	25	22	17	131	14	6.6
30	9.8	14	13	10	---	26	25	22	16	42	13	6.7
31	10	---	12	10	---	27	---	22	---	36	12	---
TOTAL	311.6	352.7	433	390	462	779	802	759	598	1031	495	233.4
MEAN	10.1	11.8	14.0	12.6	16.5	25.1	26.7	24.5	19.9	33.3	16.0	7.78
MAX	13	14	15	18	24	32	29	34	29	295	30	11
MIN	9.2	9.2	12	10	10	21	24	20	15	12	11	6.4
AC-FT	618	700	859	774	916	1550	1590	1510	1190	2040	982	463

CAL YR 1978 TOTAL 14283.3 MEAN 39.1 MAX 1320 MIN 5.5 AC-FT 28330
WTR YR 1979 TOTAL 6646.7 MEAN 18.2 MAX 295 MIN 6.4 AC-FT 13180

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

REMARKS.--Sediment samples are collected only at selected flow conditions.

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
JUN					
12...	1320	23	425	149	9.3

07142575 RATTLESNAKE CREEK NEAR ZENITH, KS

LOCATION.--Lat 38°06'01", long 98°30'32", in SW¼SW¼SW¼ sec.26, T.22 S., R.11 W., Stafford County, Hydrologic Unit 11030009, at downstream side of highway bridge, 1.1 mi (1.8 km) upstream from Little Salt Marsh, 10.0 mi (16.1 km) north of Zenith, and at mile 19.3 (31.1 km).

DRAINAGE AREA.--1,052 mi² (2,725 km²), of which 519 mi² (1,344 km²) is noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1973 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,785 ft (544 m), from topographic map.

REMARKS.--Records good except those for winter periods, which are poor.

AVERAGE DISCHARGE.--6 years, 85.4 ft³/s (2.419 m³/s), 61,870 acre-ft/yr (76.3 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,200 ft³/s (515 m³/s) Sept. 26, 1973, gage height, 9.95 ft (3.033 m); minimum, 0.48 ft³/s (0.014 m³/s) Sept. 11, 12, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 226 ft³/s (6.40 m³/s) Aug. 1, gage height, 4.92 ft (1.500 m), no peak above base of 400 ft³/s (11.3 m³/s); minimum 0.98 ft³/s (0.028 m³/s) Sept. 30.

DISCHARGE, STREAM (CUBIC FEET PER SECOND), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	10	30	33	19	66	67	48	42	20	193	18
2	16	12	30	32	19	57	69	44	41	19	92	15
3	16	14	30	30	20	61	68	56	39	17	59	14
4	15	16	31	29	20	106	78	58	37	16	48	13
5	15	16	31	28	21	74	81	57	39	16	42	12
6	14	18	31	27	22	58	74	54	39	18	37	10
7	15	20	29	27	23	55	70	49	39	20	32	8.7
8	15	20	28	27	24	49	64	47	38	26	28	8.2
9	11	20	30	27	25	54	61	45	45	27	25	8.5
10	14	20	33	27	27	61	60	44	48	25	24	7.2
11	15	21	35	27	29	62	62	44	45	20	26	6.4
12	14	22	33	28	31	55	62	43	42	17	24	5.9
13	13	26	33	29	32	49	60	42	40	15	23	5.2
14	13	24	33	30	34	46	57	42	36	15	22	5.7
15	13	24	33	31	36	45	56	41	33	12	24	5.8
16	7.9	26	33	32	40	45	54	40	31	13	28	5.6
17	10	28	35	34	43	45	52	39	30	16	26	5.2
18	14	27	35	34	47	88	53	41	28	20	23	4.9
19	14	26	34	35	50	164	54	42	25	19	21	4.7
20	12	53	34	33	54	132	53	56	24	18	19	4.6
21	12	73	34	32	58	105	51	64	23	16	17	4.1
22	12	72	34	30	64	100	49	54	22	14	16	3.9
23	4.8	42	36	29	70	124	49	55	27	18	15	3.9
24	4.5	28	35	27	76	120	48	53	25	20	14	3.8
25	8.3	31	35	25	82	100	47	52	26	24	15	3.8
26	7.5	32	35	22	90	78	47	53	27	27	18	3.9
27	6.3	32	35	21	110	74	46	54	28	26	18	3.7
28	17	32	35	20	125	69	45	53	27	35	18	3.7
29	7.5	30	35	19	---	64	45	51	25	38	18	3.6
30	7.9	30	35	19	---	61	45	46	22	58	26	3.1
31	8.3	---	35	19	---	61	---	43	---	118	21	---
TOTAL	370.0	845	1025	863	1291	2328	1727	1510	993	763	1012	206.1
MEAN	11.9	28.2	33.1	27.8	46.1	75.1	57.6	48.7	33.1	24.6	32.6	6.87
MAX	17	73	36	35	125	164	81	64	48	118	193	18
MIN	4.5	10	28	19	19	45	45	39	22	12	14	3.1
AC-FT	734	1680	2030	1710	2560	4620	3430	3000	1970	1510	2010	409

CAL YR 1978 TOTAL 21835.67 MEAN 59.8 MAX 920 MIN .67 AC-FT 43310
WTR YR 1979 TOTAL 12933.10 MEAN 35.4 MAX 193 MIN 3.1 AC-FT 25650

07142620 RATTLESNAKE CREEK NEAR RAYMOND, KS

LOCATION.--Lat 38°13'50", long 98°25'00", in SW¼NW¼ sec.15, T.21 S., R.10 W., Rice County, Hydrologic Unit 11030009, at downstream side of highway bridge, 3.5 mi (5.6 km) south of Raymond, and 5.4 mi (8.7 km) upstream from mouth.

DRAINAGE AREA.--1,167 mi^2 (3,023 km^2), of which 569 mi^2 (1,474 km^2) is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1960 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,701.64 ft (518.660 m) National Geodetic Vertical Datum of 1929. Prior to July 27, 1960, nonrecording gage at same site and datum.

REMARKS.--Records good except those for winter periods, April, August, and September, which are poor. Flow regulated at times by Quivera National Wildlife Refuge.

AVERAGE DISCHARGE.--19 years, 59.3 ft^3/s (1.679 m^3/s), 42,960 acre-ft/yr (53.0 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,140 ft^3/s (60.6 m^3/s) Sept. 29, 1973, gage height, 8.74 ft (2.664 m); no flow at times in 1964, 1968, 1969.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 29, 1973 was the maximum known since at least 1891, from information by local resident.

EXTREMES FOR CURRENT YEAR.--Peak discharges above regulated base of 100 ft^3/s (2.83 m^3/s) and maximum (*):

Date	Time		Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Mar. 4	2300		115	3.26	4.88	1.487
Mar. 25	1030	*	210	5.95	5.40	1.646

Minimum daily discharge, 0.80 ft^3/s (0.023 m^3/s) Sept. 22-30.

DISCHARGE, STREAM (CUBIC FEET PER SECOND), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.6	2.4	4.5	2.5	2.5	68	147	50	36	6.4	14	2.8
2	2.6	2.4	4.0	2.5	2.6	73	136	59	36	6.0	23	2.5
3	2.5	2.4	3.7	2.4	2.7	84	142	61	35	5.3	32	2.4
4	2.5	2.4	4.0	2.3	2.7	69	147	61	36	5.3	32	2.2
5	2.4	2.4	4.3	2.2	2.6	96	143	62	42	4.7	29	2.0
6	2.4	2.4	4.3	2.3	2.7	85	132	63	35	4.9	25	1.8
7	2.4	2.6	4.3	2.3	2.9	82	120	62	13	4.7	21	1.6
8	2.3	2.6	4.1	2.3	3.2	81	115	55	10	4.2	18	1.7
9	2.3	2.6	4.2	2.4	3.4	83	110	55	12	3.4	15	1.5
10	2.2	2.6	4.2	2.4	4.0	83	118	49	13	3.2	13	1.1
11	2.5	2.4	4.2	2.4	6.0	84	111	45	9.7	3.1	12	1.1
12	2.2	2.4	4.0	2.4	6.0	84	105	47	8.5	3.0	9.7	1.1
13	2.2	2.6	3.7	2.4	7.0	83	114	46	8.2	2.6	8.8	1.1
14	2.2	2.6	3.5	2.5	6.8	78	114	46	8.5	2.4	7.6	1.2
15	2.2	8.3	3.7	2.6	6.6	75	104	43	8.8	2.4	14	1.2
16	2.1	5.0	3.8	2.6	6.0	74	98	44	9.4	3.1	9.4	1.1
17	2.1	4.3	4.0	2.7	6.4	74	90	42	8.5	3.3	5.3	1.1
18	2.1	4.0	4.0	2.8	10	97	86	44	7.6	3.1	4.0	1.0
19	2.1	4.0	4.0	3.1	25	103	82	38	7.6	3.0	3.6	1.0
20	2.1	5.5	3.6	3.3	80	132	76	40	8.5	2.6	3.4	1.0
21	2.1	7.0	3.8	3.5	64	155	66	42	6.9	2.4	4.7	.90
22	2.1	7.0	4.0	4.0	74	176	62	44	6.2	2.2	4.2	.80
23	2.2	4.5	3.7	3.8	80	184	59	44	7.1	4.4	3.4	.80
24	2.4	4.0	3.8	3.8	74	188	59	44	6.9	7.9	3.4	.80
25	2.4	4.3	4.0	3.6	70	199	58	44	6.7	22	3.4	.80
26	2.4	4.6	3.7	3.5	68	182	51	48	6.9	11	3.1	.80
27	2.4	4.8	3.6	3.2	68	168	56	44	7.1	7.4	3.0	.80
28	2.4	5.0	3.4	3.0	66	163	56	42	7.1	5.8	3.0	.80
29	2.4	4.5	3.3	2.9	---	155	60	42	6.4	5.5	2.8	.80
30	2.4	4.8	3.2	2.6	---	143	55	40	6.7	6.0	6.8	.80
31	2.4	---	2.5	2.3	---	135	---	35	---	13	3.4	---
TOTAL	71.6	116.4	119.1	86.6	755.1	3536	2872	1481	421.3	164.3	341.0	38.60
MEAN	2.31	3.88	3.84	2.79	27.0	114	95.7	47.8	14.0	5.30	11.0	1.29
MAX	2.6	8.3	4.5	4.0	80	199	147	63	42	22	32	2.8
MIN	2.1	2.4	2.5	2.2	2.5	68	51	35	6.2	2.2	2.8	.80
AC-FT	142	231	236	172	1500	7010	5700	2940	836	326	676	77

CAL YR 1978 TOTAL 16172.50 MEAN 44.3 MAX 512 MIN .64 AC-FT 32080
WTR YR 1979 TOTAL 10003.00 MEAN 27.4 MAX 199 MIN .80 AC-FT 19840

07142860 COW CREEK NEAR CLAFLIN, KS

LOCATION.--Lat 38°31'20", long 98°35'00", in NE¼NW¼ sec.6, T.18 S., R.11 W., Barton County, Hydrologic Unit 11030011, at downstream side of bridge on State Highway 4, 2.5 mi (4.0 km) west of Claflin, and at mile 97.8 (157.4 km).

DRAINAGE AREA.--43 mi^2 (111 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1966 to current year.

REVISED RECORDS.--WRD KS-75: 1969(M), 1971(M), 1974(M).

GAGE.--Water-stage recorder. Datum of gage is 1,780.90 ft (542.818 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--13 years, 7.21 ft^3/s (0.204 m^3/s), 5,220 acre-ft/yr (6.44 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,060 ft^3/s (143 m^3/s) Aug. 29, 1975, gage height, 16.15 ft (4.923 m), from rating curve extended above 2,000 ft^3/s (65.1 m^3/s) on basis of contracted-opening measurement of peak flow; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 250 ft^3/s (7.08 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 23	1400	298	8.44	7.57	2.307
May 2	1300	* 1,200	34.0	11.82	3.603

Minimum discharge, no flow most days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	3.6	.58	.30	.24	.00	.00	.00
2	.00	.00	.00	.00	.00	3.1	.58	664	.25	.00	.00	.00
3	.00	.00	.00	.00	.00	3.1	.58	177	.25	.00	.00	.00
4	.00	.00	.00	.00	.00	2.0	.64	34	.24	.00	.00	.00
5	.00	.00	.00	.00	.00	3.6	.52	22	.20	.00	.00	.00
6	.00	.00	.00	.00	.00	3.1	.42	14	.17	.00	.00	.00
7	.00	.00	.00	.00	.00	1.6	.42	6.1	.18	.00	.00	.00
8	.00	.00	.00	.00	.00	1.1	.25	4.0	.17	.00	.00	.00
9	.00	.00	.00	.00	.00	.90	.19	3.1	.23	.00	.00	.00
10	.00	.00	.00	.00	.00	.69	.25	2.7	.25	.00	.00	.00
11	.00	.00	.00	.00	.00	.52	.36	2.2	.23	.00	.00	.00
12	.00	.00	.00	.00	.00	.36	.42	1.5	.18	.00	.00	.00
13	.00	.00	.00	.00	.00	.25	.36	1.5	.08	.00	.00	.00
14	.00	.00	.00	.00	.00	.19	.52	1.4	.06	.00	.00	.00
15	.00	.00	.00	.00	.00	.17	.52	1.3	.04	.00	.00	.00
16	.00	.00	.00	.00	.00	.17	.64	1.3	.03	.01	.00	.00
17	.00	.00	.00	.00	.00	.15	.52	1.2	.01	.01	.00	.00
18	.00	.00	.00	.00	.00	42	.30	1.1	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	80	.52	1.1	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	8.8	.52	1.1	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	3.3	.52	1.1	.00	.00	.00	.00
22	.00	.00	.00	.00	2.4	2.2	.52	1.1	.00	.00	.00	.00
23	.00	.00	.00	.00	209	2.5	.23	.90	.00	.00	.00	.00
24	.00	.00	.00	.00	89	8.1	.30	.74	.00	.01	.00	.00
25	.00	.00	.00	.00	20	9.3	.36	.69	.00	.01	.00	.00
26	.00	.00	.00	.00	10	3.3	.36	.64	.00	.00	.00	.00
27	.00	.00	.00	.00	9.8	1.7	.30	.52	.00	.00	.00	.00
28	.00	.00	.00	.00	6.4	1.2	.36	.52	.00	.00	.00	.00
29	.00	.00	.00	.00	---	1.0	.30	.42	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.80	.25	.25	.00	.00	.00	.00
31	.00	---	.00	.00	---	.52	---	.23	---	.00	.00	---
TOTAL	.00	.00	.00	.00	346.60	189.32	12.61	948.01	2.81	.04	.00	.00
MEAN	.000	.000	.000	.000	12.4	6.11	.42	30.6	.094	.001	.000	.000
MAX	.00	.00	.00	.00	209	80	.64	664	.25	.01	.00	.00
MIN	.00	.00	.00	.00	.00	.15	.19	.23	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	687	376	25	1880	5.6	.08	.00	.00

CAL YR 1978 TOTAL 515.32 MEAN 1.41 MAX 80 MIN .00 AC-FT 1020
WTR YR 1979 TOTAL 1499.39 MEAN 4.11 MAX 664 MIN .00 AC-FT 2970

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

REMARKS.--No flow on many days during period of record. Sediment samples are collected only at selected flow conditions.

07142900 BLOOD CREEK NEAR BOYD, KS

LOCATION.--Lat 38°32'10", long 98°51'39", in NE¼NW¼ sec.34, T.17 S., R.14 W., Barton County, Hydrologic Unit 11030011, at downstream side of bridge on State Highway 4, 1.3 mi (2.1 km) northwest of Boyd, 4.8 mi (7.7 km) northwest of Hoisington, and 11.9 mi (19.1 km) upstream from Cheyenne Bottoms.

DRAINAGE AREA.--61 mi² (158 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Annual maximum, water years 1957-62. March 1962 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,834.947 ft (559.292 m) National Geodetic Vertical Datum of 1929. Prior to Mar. 23, 1962, crest-stage gage at site 0.7 mi (1.1 km) upstream at different datum.

REMARKS.--Records good except those for winter periods and period of no gage-height record, Mar. 30 to May 29, which are poor.

AVERAGE DISCHARGE.--17 years, 7.40 ft³/s (0.210 m³/s), 5,360 acre-ft/yr (6.61 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,860 ft³/s (109 m³/s) June 29, 1967, gage height, 14.87 ft (4.532 m); no flow at times during most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 572 ft³/s (16.20 m³/s) July 25, gage height, 11.66 ft (3.554 m). No other peaks above base of 250 ft³/s (7.08 m³/s); no flow Oct. 1 to Nov. 24, Sept. 5-30.

DISCHARGE, STREAM (CUBIC FEET PER SECOND), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.22	.25	.50	7.6	.70	1.5	.75	.18	.46	.05
2	.00	.00	.20	.30	.50	6.4	1.0	240	.68	.19	.44	.04
3	.00	.00	.18	.32	.50	5.6	6.0	70	.66	.16	.41	.03
4	.00	.00	.18	.32	.50	4.1	5.5	25	.65	.13	.38	.02
5	.00	.00	.18	.36	.50	3.1	5.0	7.0	.63	.15	.36	.00
6	.00	.00	.20	.40	.50	2.7	7.0	5.0	.59	.32	.32	.00
7	.00	.00	.20	.44	.50	4.0	5.0	4.0	.53	.38	.28	.00
8	.00	.00	.14	.48	.50	12	4.0	3.0	.53	.20	.26	.00
9	.00	.00	.09	.50	.50	7.5	3.0	2.0	.60	.11	.24	.00
10	.00	.00	.18	.46	.50	4.9	2.5	3.0	.65	.09	.24	.00
11	.00	.00	.16	.46	.55	3.4	2.0	2.5	.65	.06	.24	.00
12	.00	.00	.22	.53	.60	2.4	10	2.0	.56	.03	.24	.00
13	.00	.00	.30	.50	.65	1.9	8.0	1.5	.50	.03	.22	.00
14	.00	.00	.40	.46	.70	1.6	5.0	1.0	.43	.00	.22	.00
15	.00	.00	.38	.48	.70	1.3	4.0	.90	.39	.03	.23	.00
16	.00	.00	.36	.56	.60	1.3	3.5	.80	.35	.05	.25	.00
17	.00	.00	.32	.59	.60	1.3	3.0	.70	.31	.41	.27	.00
18	.00	.00	.34	.59	.60	1.6	2.5	1.5	.27	.32	.26	.00
19	.00	.00	.40	.65	.65	2.0	2.5	3.0	.24	.07	.26	.00
20	.00	.00	.44	.68	.70	1.5	4.0	2.0	.20	.02	.26	.00
21	.00	.00	.44	.68	.70	2.0	3.5	1.5	.20	.00	.26	.00
22	.00	.00	.44	.59	.80	1.9	3.0	1.0	.21	.00	.26	.00
23	.00	.00	.44	.56	.80	1.7	2.5	.90	.20	.01	.23	.00
24	.00	.00	.42	.59	.90	19	2.0	.80	.20	.05	.22	.00
25	.00	.02	.42	.65	1.0	14	1.5	.80	.23	313	.22	.00
26	.00	.12	.44	.68	1.5	4.0	1.5	.80	.20	37	.22	.00
27	.00	.46	.42	.59	3.0	1.9	1.5	.80	.17	4.0	.20	.00
28	.00	.38	.46	.56	7.7	1.4	1.5	.80	.17	1.3	.21	.00
29	.00	.38	.50	.59	---	1.2	1.5	.80	.18	.77	.20	.00
30	.00	.22	.28	.68	---	1.0	1.5	.79	.18	.52	.16	.00
31	.00	---	.25	.60	---	.80	---	.80	---	.50	.09	---
TOTAL	.00	1.50	9.60	16.10	27.75	125.10	104.20	386.19	12.11	360.08	8.11	.14
MEAN	.000	.050	.31	.52	.99	4.04	3.47	12.5	.40	11.6	.26	.005
MAX	.00	.46	.50	.68	7.7	19	10	240	.75	313	.46	.05
MIN	.00	.00	.09	.25	.50	.80	.70	.70	.17	.00	.09	.00
AC-FT	.00	3.0	.19	32	55	248	207	766	24	714	16	.3

CAL YR 1978 TOTAL 918.68 MEAN 2.52 MAX 131 MIN .00 AC-FT 1820
WTR YR 1979 TOTAL 1050.88 MEAN 2.88 MAX 313 MIN .00 AC-FT 2080

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

REMARKS.--Sediment samples are collected only at selected flow conditions.

07143300 COW CREEK NEAR LYONS, KS

LOCATION.--Lat 38°18'30", long 98°11'30", in SW¼SE¼ sec.15, T.20 S., R.8 W., Rice County, Hydrologic Unit 11030011, at downstream side of Missouri Pacific Railroad bridge, 500 ft (150 m) downstream from Little Cow Creek, 3.0 mi (4.8 km) south of Lyons, and 33 mi (53 km) upstream from mouth.

DRAINAGE AREA.--728 mi^2 (1,890 km^2), includes 229 mi^2 (593 km^2) in Cheyenne Bottoms, closed basin.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1937 to September 1951. Occasional low-flow measurements, water years 1954-60. Annual maximum, water years 1960-61. October 1961 to current year. Prior to April 1938, monthly discharge only, published in WSP 1311.

REVISED RECORDS.--WSP 877: 1938(M). WSP 1117: Drainage area. WSP 1177: 1950(M).

GAGE.--Water-stage recorder. Datum of gage is 1,628.16 ft (496.263 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to July 3, 1938, nonrecording gage at present site and datum. July 3, 1938, to Sept. 30, 1951, water-stage recorder at site 60 ft (18 m) upstream at same datum. October 1959, to Mar. 12, 1962, crest-stage gage at present site and datum.

REMARKS.--Records good except those for winter periods, which are poor. Natural flow of stream affected by releases from Cheyenne Bottoms, which in turn is affected by diversions from Arkansas River and Walnut Creek.

AVERAGE DISCHARGE.--32 years, 83.4 ft^3/s (2.362 m^3/s), 60,420 acre-ft/yr (74.5 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,100 ft^3/s (683 m^3/s) Sept. 26, 1973, gage height, 20.38 ft (6.212 m), from rating curve extended above 7,200 ft^3/s (200 m^3/s); no flow at times during 1938, 1946.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since at least 1928, 22.75 ft (6.934 m) July 11, 1929, from information by Missouri Pacific Railroad Co. Flood on Oct. 20, 1941 reached a stage of 20.49 ft (6.245 m), discharge, 12,400 ft^3/s (351 m^3/s) from rating curve extended above 2,700 ft^3/s (76.5 m^3/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 828 ft^3/s (23.4 m^3/s) Mar. 20, gage height, 14.18 ft (4.322 m); no peak above base of 1,200 ft^3/s (34.0 m^3/s); minimum, 1.5 ft^3/s (0.042 m^3/s) Sept. 21, 22, 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0	4.7	8.8	5.0	7.0	80	34	13	30	8.5	7.3	2.6
2	2.6	4.6	8.5	5.0	8.0	100	27	14	36	8.3	6.6	2.6
3	2.5	5.0	7.8	6.0	8.0	120	24	35	26	8.0	6.0	2.5
4	2.3	6.0	7.8	7.0	8.0	100	30	595	21	7.7	5.6	2.2
5	2.3	5.4	7.8	8.0	8.0	80	28	253	19	7.6	5.3	2.2
6	2.5	5.9	7.8	8.0	9.0	65	24	68	18	8.9	5.5	2.2
7	2.5	5.3	7.6	8.0	9.0	55	22	44	31	13	5.4	2.3
8	2.5	6.5	8.2	8.0	10	45	21	34	43	17	4.9	2.1
9	2.8	6.6	8.3	9.0	12	40	21	31	24	17	4.9	1.9
10	2.7	6.5	8.2	9.0	15	35	20	48	26	12	4.8	1.8
11	2.5	6.7	8.2	9.0	20	30	23	44	26	9.7	4.7	1.9
12	2.7	6.3	8.2	9.0	25	25	22	67	29	8.5	4.6	2.0
13	2.7	6.3	8.2	9.0	25	21	20	53	22	7.6	4.8	1.9
14	2.9	6.9	8.5	9.0	25	18	19	37	17	7.2	4.4	1.9
15	2.7	7.6	8.8	10	22	16	18	50	14	6.8	4.1	1.7
16	3.0	9.1	8.8	10	20	14	18	56	11	11	3.6	1.8
17	3.1	9.4	8.6	10	20	14	17	33	11	202	4.4	2.0
18	3.0	8.6	8.8	11	20	140	17	25	10	100	4.6	1.8
19	2.9	8.0	8.8	11	30	607	17	26	9.4	49	4.2	1.7
20	2.9	7.5	9.1	12	50	767	16	31	8.8	26	3.7	1.7
21	3.1	7.1	8.8	12	80	284	16	55	8.5	16	4.0	1.6
22	3.8	7.1	9.4	13	120	223	16	58	8.3	15	3.7	1.7
23	3.5	7.4	9.1	12	200	310	15	56	84	15	3.6	1.7
24	3.4	7.5	8.2	14	300	406	15	59	42	12	3.3	1.8
25	3.5	9.2	9.2	15	500	409	14	65	17	11	3.4	1.8
26	3.8	11	8.5	14	350	211	14	64	13	9.0	3.2	1.9
27	4.1	10	8.5	12	200	80	14	57	11	10	2.8	1.8
28	4.1	9.9	8.8	10	120	47	13	52	9.7	12	2.7	1.7
29	3.7	9.5	8.3	8.0	---	36	13	49	9.2	8.9	2.8	1.8
30	4.9	8.6	7.0	8.0	---	29	13	37	8.8	8.0	2.8	1.8
31	4.8	---	6.0	7.0	---	25	---	25	---	10	2.9	---
TOTAL	96.8	220.2	258.6	298.0	2221.0	4440	581	2134	643.7	662.7	134.6	58.4
MEAN	3.12	7.34	8.34	9.61	79.3	143	19.4	68.8	21.5	21.4	4.34	1.95
MAX	4.9	11	9.4	15	500	767	34	595	84	202	7.3	2.6
MIN	2.3	4.6	6.0	5.0	7.0	14	13	13	8.3	6.8	2.7	1.6
AC-FT	192	437	513	591	4410	8810	1150	4230	1280	1310	267	116

CAL YR 1978 TOTAL 11009.6 MEAN 30.2 MAX 771 MIN 1.9 AC-FT 21840
WTR YR 1979 TOTAL 11749.0 MEAN 32.2 MAX 767 MIN 1.6 AC-FT 23300

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1962 to current year.

REMARKS.--Sediment samples are collected only at selected flow conditions.

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)
MAY					
22...	1155	57	2800	220	34
JUN					
21...	1050	8.4	2600	95	2.2

07143330 ARKANSAS RIVER NEAR HUTCHINSON, KS

LOCATION.--Lat 37°56'47", long 97°46'29", in SW¼NW¼SW¼ sec.21, T.24 S., R.4 W., Reno County, Hydrologic Unit 11030010, at downstream side of highway bridge, 3.0 mi (4.8 km) north of Haven, 4.5 mi (7.2 km) downstream from Cow Creek, 11 mi (17.7 km) southeast of Hutchinson, and at mile 800.3 (1,287.7 km).

DRAINAGE AREA.--38,910 mi^2 (100,780 km^2), of which 7,186 mi^2 (18,612 km^2) is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1959 to current year.

REVISED RECORDS.--WDR KS-74-1: 1973(M).

GAGE.--Water-stage recorder. Datum of gage is 1,454.10 ft (443.210 m) National Geodetic Vertical Datum of 1929. Prior to June 22, 1960, nonrecording gage at present site and datum.

REMARKS.--Records good except those winter periods, which are poor. Flow slightly regulated by John Martin Reservoir (see sta 07130000). Extensive diversions for irrigation.

AVERAGE DISCHARGE.--20 years, 620 ft^3/s (17.56 m^3/s), 449,200 acre-ft/yr (554 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,700 ft^3/s (700 m^3/s) Sept. 28, 1973, gage height, 12.95 ft (3.947 m); minimum, 30 ft^3/s (0.85 m^3/s) Oct. 4, 5, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1901, that of Sept. 28, 1973, from information by local resident.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,800 ft^3/s (51 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Mar. 18	1800	2,120	60.0	5.99	1.826	May 6	1600	2,010	56.9	5.90	1.798
Mar. 22	1600	2,370	67.1	6.18	1.884	July 30	2000	* 4,100	116	7.34	2.237
Mar. 27	1400	2,630	74.5	6.37	1.942						

Minimum discharge, 60 ft^3/s (1.70 m^3/s) Jan. 1-8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	198	102	135	60	65	589	980	400	334	159	2320	234
2	184	106	137	60	65	528	891	416	315	152	1860	220
3	179	105	140	60	65	1040	855	434	298	143	1480	206
4	184	108	150	60	65	1010	834	409	297	139	1340	191
5	174	108	159	60	65	941	819	976	293	235	1140	183
6	159	132	116	60	70	868	788	1880	295	301	985	185
7	145	131	125	60	70	711	735	1560	283	343	877	170
8	140	123	120	60	70	557	699	960	371	255	795	151
9	135	112	120	65	70	534	660	740	365	194	709	136
10	134	109	130	70	85	552	645	794	343	170	651	130
11	127	111	107	80	95	535	658	690	297.	153	668	135
12	125	132	109	80	100	474	645	611	268	142	547	136
13	116	142	134	80	100	446	628	579	243	129	490	126
14	106	131	128	70	100	409	604	554	222	122	450	123
15	103	144	122	70	100	390	588	529	208	120	405	119
16	102	160	117	70	130	377	577	496	190	131	392	111
17	100	164	102	85	177	374	583	472	177	547	364	107
18	103	144	98	95	202	1340	586	484	173	291	339	108
19	103	134	103	100	286	1490	570	461	164	408	316	107
20	102	132	99	100	384	1490	555	960	163	387	309	109
21	105	125	88	95	450	1290	526	891	150	309	313	108
22	107	122	82	90	480	1970	509	604	158	255	312	104
23	98	123	81	80	580	2220	494	470	388	321	295	97
24	95	116	81	80	814	1810	482	418	249	374	285	94
25	97	131	68	80	710	1520	479	388	231	626	273	114
26	95	163	72	90	792	2110	458	356	237	1380	261	101
27	99	152	71	90	993	2550	436	354	192	2120	256	92
28	98	143	79	80	890	2370	410	354	179	2880	244	92
29	99	139	97	70	---	1820	402	354	169	3540	231	93
30	101	135	90	65	---	1310	401	354	159	3950	230	87
31	104	---	78	65	---	1090	---	344	---	3550	250	---
TOTAL	3813	3879	3330	2330	8073	34715	18497	19292	7411	23826	19387	3969
MEAN	123	129	107	75.2	288	1120	617	622	247	769	625	132
MAX	198	164	159	100	993	2550	980	1880	388	3950	2320	234
MIN	95	102	68	60	65	374	401	344	150	120	230	87
AC-FT	7560	7690	6610	4620	16010	68860	36690	38270	14700	47260	38450	7870

CAL YR 1978 TOTAL 120215 MEAN 329 MAX 1880 MIN 68 AC-FT 238400
WTR YR 1979 TOTAL 148522 MEAN 407 MAX 3950 MIN 60 AC-FT 294600

07143330 ARKANSAS RIVER NEAR HUTCHINSON KS--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1961 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1968 to September 1976.
WATER TEMPERATURES: October 1960 to September 1976.
SUSPENDED-SEDIMENT DISCHARGE: October 1960 to June 1970.

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
FEB					
23...	1200	557	1805	474	713
MAR					
29...	1300	1700	900	2860	13100
MAY					
10...	1100	723	1635	274	535
JUN					
14...	1050	222	3400	36	22
JUL					
17...	1215	635	470	894	1530
AUG					
29...	0820	176	2500	46	22

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	SEDI-MENT, SUS-PENDED (MG/L)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM
MAR										
29...	1300	2860	35	38	40	41	47	70	98	100
JUL										
17...	1215	894	66	78	89	96	97	98	99	100

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	SEDI-MENT, SUS-PENDED (MG/L)	BED MAT. FALL DIAM. % FINER THAN .125 MM	BED MAT. FALL DIAM. % FINER THAN .250 MM	BED MAT. FALL DIAM. % FINER THAN .500 MM	BED MAT. FALL DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM
OCT									
10...	1330	--	0	10	62	84	98	99	100
MAY									
10...	1100	274	0	9	40	61	78	94	100

07143665 LITTLE ARKANSAS RIVER AT ALTA MILLS, KS

LOCATION.--Lat 38°06'44", long 97°35'30", in SW¼NW¼NW¼ sec.30, T.22 S., R.2 W., Harvey County, Hydrologic Unit 11030012, at downstream side of county highway bridge, 0.4 mi (0.6 km) south of Alta Mills, 0.8 mi (1.3 km) downstream from Sand Creek, and at mile 50.1 (80.6 km).

DRAINAGE AREA.--736 mi^2 (1,910 km^2), of which 55 mi^2 (140 km^2) is noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1973 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,395 ft (425.2 m), from topographic map.

REMARKS.--Records good.

AVERAGE DISCHARGE.--6 years, 246 ft^3/s (6.967 m^3/s), 178,200 acre-ft/yr (220 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,300 ft^3/s (433 m^3/s) Oct. 12, 1973, gage height, 27.42 ft (8.358 m) from rating curve extended above 7,000 ft^3/s (198 m^3/s); minimum, 2.9 ft^3/s (0.082 m^3/s) Aug. 31, Sept. 1, 1976.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft^3/s (28.3 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 25	0200	2,290	64.9	15.21	4.636	July 7	0300	1,670	47.3	13.07	3.984
Mar. 4	2100	3,750	106	18.90	5.761	July 19	1400	1,660	47.0	13.05	3.978
Mar. 19	1400	* 7,720	219	24.02	7.321	Aug. 31	1700	1,030	29.2	10.47	3.191
Mar. 24	1600	5,110	145	21.13	6.440						

Minimum discharge, 5.0 ft^3/s (0.142 m^3/s) Sept. 24, 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	10	18	11	17	484	95	37	21	17	456	453
2	28	11	17	11	16	444	86	36	20	17	316	82
3	25	11	15	11	15	2350	112	37	19	18	107	45
4	22	11	15	12	15	3570	113	43	18	15	56	31
5	19	11	14	12	15	2790	122	46	17	151	38	26
6	18	11	14	12	15	855	148	44	16	1290	31	93
7	17	10	13	12	15	549	115	38	16	1600	25	190
8	17	11	12	12	15	374	84	36	39	1020	19	77
9	17	12	12	12	15	248	68	35	70	310	14	38
10	17	12	12	12	14	383	63	102	58	118	13	27
11	16	12	12	12	14	380	63	209	49	70	102	22
12	15	12	12	12	14	209	69	158	32	51	93	17
13	14	13	12	11	15	122	75	80	26	36	39	12
14	13	13	12	11	15	87	75	51	23	27	29	9.5
15	13	13	13	12	17	69	59	37	22	25	23	8.3
16	13	14	13	12	19	58	51	31	19	27	18	7.8
17	13	16	13	11	22	53	47	28	17	434	14	7.4
18	12	16	14	11	23	2070	222	26	16	958	12	6.9
19	12	17	14	11	24	6900	122	25	15	1580	11	6.5
20	12	19	14	12	23	5290	77	348	13	592	11	6.1
21	12	19	14	12	25	1480	64	245	12	167	9.9	6.0
22	11	17	14	12	94	1230	58	110	21	106	9.4	5.6
23	11	15	14	18	855	3330	55	65	321	80	8.2	5.4
24	11	14	14	20	1990	4940	51	46	283	224	8.2	5.1
25	11	14	14	20	1880	4350	47	37	163	294	8.5	5.4
26	10	14	14	18	679	1750	46	31	68	105	8.7	6.0
27	10	15	14	19	320	413	44	29	39	69	8.7	6.0
28	11	18	14	18	321	264	41	27	28	54	9.0	6.0
29	10	21	14	17	---	201	40	26	24	44	7.5	5.8
30	10	21	13	17	---	139	39	24	20	32	66	5.7
31	10	---	13	17	---	112	---	23	---	176	845	---
TOTAL	461	423	423	420	6502	45494	2351	2110	1505	9707	2416.1	1222.5
MEAN	14.9	14.1	13.6	13.5	232	1468	78.4	68.1	50.2	313	77.9	40.8
MAX	31	21	18	20	1990	6900	222	348	321	1600	845	453
MIN	10	10	12	11	14	53	39	23	12	15	7.5	5.1
AC-FT	914	839	839	833	12900	90240	4660	4190	2990	19250	4790	2420

CAL YR 1978 TOTAL 45612.0 MEAN 125 MAX 3000 MIN 3.4 AC-FT 90470
WTR YR 1979 TOTAL 73034.6 MEAN 200 MAX 6900 MIN 5.1 AC-FT 144900

07143665 LITTLE ARKANSAS RIVER AT ALTA MILLS, KS--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
FEB					
23...	1445	934	430	432	1090
MAR					
30...	1130	138	870	286	107
AUG					
27...	1140	7.8	1140	73	1.5

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	SEDI-MENT, SUS-PENDED (MG/L)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM
JUL								
19...	1330	1350	73	85	89	96	98	100

07144200 LITTLE ARKANSAS RIVER AT VALLEY CENTER, KS

LOCATION.--Lat 37°49'56", long 97°23'16", river gage is in NE¼NW¼SW¼ sec.36, T.25 S., R.1 W., Sedgwick County, Hydrologic Unit 11030012, at downstream side of highway bridge, 0.5 mi (0.8 km) west of Valley Center, and 17.5 mi (28.2 km) upstream from mouth. Little Arkansas River Floodway gage is in NE¼NE¼NE¼ sec.34, T.25 S., R.1 W., at downstream side of highway bridge, 1.2 mi (1.9 km) northwest of river gage.

DRAINAGE AREA.--1,327 mi^2 (3,437 km^2), of which about 77 mi^2 (199 km^2) is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1922 to current year. Monthly discharge only for some periods, published in WSP 1311.

REVISED RECORDS.--WSP 1037: 1944. WSP 1117: Drainage area. WSP 1241: 1923, 1924-26(M), 1928-29(M), 1930(M, m), 1931(M), 1932(M, m), 1933(M), 1934, 1937(M), 1949(M). WSP 1711: 1958.

GAGE.--River gage is water-stage recorder. Datum of gage is 1,325.66 ft (404.061 m) National Geodetic Vertical Datum of 1929. Prior to Feb. 12, 1935, nonrecording gage at site 2.0 mi (3.2 km) downstream at different datum. Feb. 12, 1935, to July 1, 1951, water-stage recorder, July 2, 1951, to Feb. 16, 1952, nonrecording gage, and Feb. 17, 1952, to Sept. 30, 1974, water-stage recorder at present site and at datum 2.00 ft (0.610 m) higher. Floodway gage is water-stage recorder. Datum of floodway gage is 1,340.00 ft (408.432 m) National Geodetic Vertical Datum of 1929 (levels by Wichita-Valley Center Flood Control project).

REMARKS.--Combined records good except those for winter periods, which are poor. Natural flow of stream affected by diversions and ground-water withdrawal for irrigation and municipal supply. Since May 1957, part of high-water flow bypasses river gage through floodway channel for which separate records are computed; figures representing combined discharge are given herein. Discharge, in cubic feet per second, through floodway occurred only on the days given herewith:

Water Year October 1978 to September 1979

Mar. 3	1,060		Mar. 20	3,890		Mar. 26	2,770		June 22	50
4	2,740		21	3,430		27	672		23	2,130
5	2,530		22	2,510		May 20	535		24	452
6	1,820		23	3,730		21	738		July 6	917
18	811		24	3,300		June 8	404		7	584
19	4,220		25	3,430		9	312			

AVERAGE DISCHARGE.--57 years, 278 ft^3/s (7.873 m^3/s), 201,400 acre-ft/yr (248 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,000 ft^3/s (906 m^3/s) Apr. 15, 1945, gage height, 24.05 ft (7.330 m), present datum, from rating curve extended above 12,000 ft^3/s (340 m^3/s) on basis of slope-area measurement of peak flow; minimum, 1.0 ft^3/s (0.028 m^3/s) Oct. 6, 1956.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,000 ft^3/s (85.0 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Mar. 3	1900	5,180	147	--	--	June 9	0100	3,950	112	--	--
Mar. 19	1100	* 6,880	195	--	--	June 23	1800	4,860	138	--	--
Mar. 25	0600	6,660	189	--	--	July 6	2200	4,250	120	--	--
May 21	0100	4,960	140	--	--						

Minimum discharge, 1.2 ft^3/s (0.034 m^3/s) Feb. 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	71	26	44	17	23	502	241	81	67	263	227	757
2	64	27	42	17	23	612	216	157	65	218	452	458
3	57	26	39	17	22	1730	202	346	63	109	307	192
4	50	27	39	20	21	2230	233	171	61	81	151	106
5	45	27	40	20	21	2140	237	116	57	581	99	74
6	42	29	38	20	25	1980	241	101	60	1630	75	207
7	39	28	34	19	25	1050	261	91	63	1880	60	249
8	38	29	32	19	23	645	218	85	1170	1710	52	235
9	37	30	33	19	23	482	179	78	1530	1060	50	132
10	35	30	34	21	25	480	150	106	737	420	46	82
11	34	29	34	21	25	643	166	552	358	242	84	65
12	34	32	34	25	22	467	158	391	210	175	153	57
13	32	34	34	25	22	280	153	265	141	141	132	50
14	30	35	33	20	18	187	153	166	105	114	77	43
15	29	33	34	25	23	142	149	117	81	94	65	39
16	28	37	34	25	25	133	138	95	80	87	61	36
17	29	42	33	25	30	108	120	84	71	597	73	35
18	29	46	36	30	30	949	198	78	66	884	50	34
19	27	40	36	35	35	2380	327	77	69	1080	46	31
20	28	38	35	35	31	2300	204	906	78	1330	44	31
21	28	43	33	36	31	2310	146	1780	65	585	38	31
22	27	43	33	31	77	2270	122	532	966	241	37	29
23	25	43	34	35	252	2480	112	276	2080	176	36	29
24	25	40	32	40	1130	2380	108	179	1570	149	35	29
25	27	39	33	32	1770	2250	101	137	607	286	35	29
26	26	43	33	28	1760	2140	95	112	348	300	35	28
27	25	43	31	25	740	1570	89	100	204	172	34	27
28	25	39	33	23	459	562	87	91	148	116	32	27
29	25	38	33	23	---	430	84	84	121	100	33	26
30	25	43	24	23	---	341	81	77	98	90	32	25
31	26	---	20	23	---	281	---	71	---	59	129	---
TOTAL	1062	1059	1057	774	6711	36474	4971	7582	11339	14910	2780	3193
MEAN	34.3	35.3	34.1	25.0	240	1177	166	245	378	481	89.7	106
MAX	71	46	44	40	1770	2480	327	1780	2080	1880	452	757
MIN	25	26	20	17	18	108	81	71	57	59	32	25
AC-FT	2110	2100	2100	1540	13310	72350	9860	15040	22490	29570	5510	6330

CAL YR 1978 TOTAL 84242 MEAN 231 MAX 5070 MIN 12 AC-FT 167100
WTR YR 1979 TOTAL 91912 MEAN 252 MAX 2480 MIN 17 AC-FT 182300

07144200 LITTLE ARKANSAS RIVER AT VALLEY CENTER, KS--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1958 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1957 to September 1961.
SUSPENDED-SEDIMENT DISCHARGE. October 1957 to September 1961.

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)
MAR					
02...	1230	612	405	797	1320
20...	1200	1330	115	2230	8010

07144300 ARKANSAS RIVER AT WICHITA, KS

LOCATION.--Lat 37°38'41", long 97°20'06", river gage is in SE¼SE¼NE¼ sec.5, T.28 S., R.1 E., Sedgwick County, Hydrologic Unit 11030013, at bridge on U.S. Highway 81 in Wichita, 3.7 mi (6.0 km) downstream from mouth of Little Arkansas River and at mile 759.7 (1,222 km). Big Slough-Cowskin Floodway gage is in sec.11, T.27 S., R.1 W., Sedgwick County, at downstream side of Bickel Avenue Bridge in Wichita, 1.0 mi (1.6 km) downstream from control structure and 6.5 mi (10.5 km) northwest of U.S. Highway 81 gage.

DRAINAGE AREA.--40,490 mi^2 (104,900 km^2), of which 7,263 mi^2 (18,810 km^2) is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1934 to current year. Gage-height records collected at site 3.2 mi (5.1 km) upstream since 1897 are contained in reports of U.S. Weather Bureau.

REVISED RECORDS.--WSP 1241: 1940, 1944. WSP 1341: Drainage area.

GAGE.--River gage is water-stage recorder. Datum of gage is 1,267.42 ft (386.310 m) National Geodetic Vertical Datum of 1929. See WSP 1921 for history of changes prior to Oct. 1, 1968. Floodway gage is water-stage recorder. Datum of floodway gage is 1,300.00 ft (396.240 m) National Geodetic Vertical Datum of 1929 (levels by Wichita-Valley Center Flood Control Project).

REMARKS.--Records fair except those for winter periods, which are poor. Flow slightly regulated by John Martin Reservoir since 1943 (see sta 07130000). Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals, diversions for irrigation, and return flow from irrigated areas. Since May 1957, part of high-water flow bypasses river gage through floodway channel for which separate records are computed; figures representing floodway discharge and combined discharge are given herein. Discharge through floodway occurred only on the days given in the following table:

Date	Discharge (ft^3/s)	Discharge (m^3/s)	Date	Discharge (ft^3/s)	Discharge (m^3/s)
Mar. 19	271	7.67	Mar. 24	26	0.74
Mar. 20	117	3.31	Mar. 25	17	0.48
Mar. 21	32	0.91	June 8	96	2.72
Mar. 23	262	7.42			

AVERAGE DISCHARGE.--45 years, 1,081 ft^3/s (30.61 m^3/s), 783,200 acre-ft/yr (966 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 39,400 ft^3/s (1,120 m^3/s) Oct. 1, 1973; minimum, 3.0 ft^3/s (0.085 m^3/s) Sept. 3, 1934.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods of May 18, 1877, and July 8, 1904, reached stages of 21 ft (6.4 m) and 20.3 ft (6.19 m), respectively, river gage site and datum then in use (from reports of U.S. Weather Bureau).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,700 ft^3/s (105 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Mar. 4	1200	5,870	166	6.69	2.039	June 8	1600	* 10,800	306	---	---
Mar. 19	1300	9,600	272	---	---	June 23	2400	5,440	154	6.46	1.969
Mar. 23	0900	10,200	289	---	---	July 31	2015	5,380	152	6.43	1.960
May 21	1000	5,290	150	6.38	1.945						

Minimum daily discharge, 72 ft^3/s (2.04 m^3/s) Feb. 3-5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	289	100	153	112	78	1320	1590	505	493	479	3230	656
2	265	100	153	110	75	1490	1340	712	478	619	2670	909
3	241	100	137	110	72	2220	1280	1090	460	491	2180	473
4	221	100	120	107	72	5410	1220	973	443	449	1610	330
5	207	102	115	105	72	4940	1210	710	437	1110	1370	265
6	192	149	110	104	74	4520	1160	1090	466	1760	1150	534
7	186	109	107	104	75	2820	1150	2020	444	3210	1020	456
8	174	109	107	103	77	1580	1100	1590	5480	2570	873	398
9	168	111	110	103	80	1270	986	1120	4040	2070	812	379
10	170	109	120	100	84	1090	954	1110	1890	1020	779	369
11	170	106	130	100	90	1220	918	1750	1160	625	714	343
12	162	116	143	102	96	1220	885	1390	780	492	729	269
13	150	129	166	105	100	932	849	1090	637	431	708	277
14	136	126	168	110	110	757	833	894	547	391	623	219
15	133	141	185	120	120	659	820	763	484	350	566	222
16	132	173	186	125	135	625	788	691	435	333	530	221
17	128	172	160	150	150	606	763	626	410	565	499	211
18	127	156	159	175	175	1250	780	646	374	1600	467	196
19	118	152	171	195	200	8170	957	640	346	1290	412	209
20	115	145	162	188	250	8190	932	1450	346	1750	430	221
21	111	136	153	170	330	7880	785	4230	333	1370	543	170
22	111	137	151	160	453	7220	717	2210	1420	659	229	146
23	104	146	148	145	459	9610	678	1170	3820	511	312	141
24	100	149	140	130	1040	8390	651	857	4130	476	293	141
25	110	178	123	120	2280	8060	632	723	1630	522	283	160
26	113	193	158	110	2720	7260	610	643	888	780	275	137
27	107	170	144	100	2260	5930	585	599	687	1400	263	139
28	108	159	130	94	1550	3950	557	574	554	2240	260	141
29	106	156	122	88	---	3140	535	554	513	3150	253	138
30	104	151	120	84	---	2360	505	533	501	3820	253	140
31	103	---	115	80	---	1790	---	510	---	4270	250	---
TOTAL	4661	4080	4366	3701	13277	115899	26770	33463	34626	40803	24586	8610
MEAN	150	136	141	119	474	3739	892	1079	1154	1316	793	287
MAX	289	193	186	195	2720	9610	1590	4230	5480	4270	3230	909
MIN	100	100	107	80	72	606	505	505	333	333	229	137
AC-FT	9250	8090	8660	7340	26330	229900	53100	66370	68680	80930	48770	17080

CAL YR 1978 TOTAL 263747 MEAN 723 MAX 6030 MIN 61 AC-FT 523100
WTR YR 1979 TOTAL 314842 MEAN 863 MAX 9610 MIN 72 AC-FT 624500

07144550 ARKANSAS RIVER AT DERBY, KS

LOCATION.--Lat 37°32'34", long 97°16'31", in SE¼SW¼NW¼ sec.12, T.29 S., R.1 E., Sedgwick County, Hydrologic Unit 11030013, at highway bridge on the west edge of Derby, 0.9 mi (1.4 km) below mouth of bypass channel, and at mile 749.5 (1,205.9 km).

DRAINAGE AREA.--40,830 mi^2 (105,750 km^2), of which 7,263 mi^2 (18,810 km^2) is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,229.95 ft (374.889 m) National Geodetic Vertical Datum of 1929 (City of Wichita bench mark).

REMARKS.--Records good. Flow moderately regulated by John Martin Reservoir (see sta 07130000). Low flow regulated by City of Wichita low-water dam. Diversions above station for irrigation.

AVERAGE DISCHARGE.--11 years, 1,281 ft^3/s (36.28 m^3/s), 928,100 acre-ft/yr (1.14 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 45,800 ft^3/s (1,300 m^3/s) Oct. 1, 1973, gage height, 15.51 ft (4.727 m); minimum, 78 ft^3/s (2.21 m^3/s) Dec. 8, 1978.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 4,000 ft^3/s (113 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Mar. 4	1500	5,420	153	7.12	2.170	June 8	1800	9,390	266	8.84	2.694
Mar. 19	1700	10,100	286	9.10	2.774	June 24	0200	4,700	133	6.75	2.057
Mar. 23	1400	* 10,300	292	9.20	2.804	July 31	1700	4,160	118	6.46	1.969
May 21	1500	4,340	123	6.56	1.999						

Minimum discharge, 78 ft^3/s (2.21 m^3/s) Dec. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	351	193	246	121	130	1530	1660	535	529	430	3140	588
2	329	205	241	117	130	1690	1370	812	515	594	2440	1140
3	311	200	215	112	130	2940	1370	1240	482	514	2270	642
4	298	198	202	111	130	4860	1380	1260	475	382	1750	426
5	287	191	211	110	135	4590	1290	741	540	1280	1450	349
6	281	326	235	110	135	4290	1190	865	565	2050	1130	1140
7	273	223	178	110	140	3100	1160	1800	650	2930	1080	633
8	262	217	121	110	140	1810	1100	1640	5160	2510	983	553
9	262	215	164	110	140	1530	997	1110	5070	2110	851	494
10	265	210	166	110	145	1260	970	1160	2740	1280	807	387
11	265	193	190	111	150	1300	1320	1570	1600	729	805	342
12	254	217	222	112	150	1420	957	1510	1040	547	771	320
13	242	257	241	116	155	1130	881	970	831	456	778	315
14	222	228	246	119	160	904	830	733	711	404	661	293
15	208	271	252	122	170	815	796	602	638	357	592	280
16	204	346	262	130	180	768	782	539	576	352	562	269
17	213	357	234	140	190	731	742	470	538	697	586	264
18	194	272	226	169	210	1990	751	564	523	1690	514	264
19	185	250	250	576	257	7780	876	547	499	1480	445	253
20	175	239	244	418	327	8060	1130	1250	529	1680	578	249
21	173	228	236	319	334	7070	797	3410	497	1580	611	252
22	175	243	235	342	422	8020	687	2300	2220	760	336	235
23	172	243	228	339	599	9330	640	1200	3650	577	360	223
24	185	230	227	253	934	7700	613	882	3960	523	390	226
25	179	295	197	210	2140	7190	584	722	1980	553	377	271
26	186	353	224	190	2640	6310	565	634	1140	744	363	233
27	172	263	237	170	2430	5350	558	583	845	1280	366	218
28	161	256	221	160	1770	3630	539	547	651	2020	354	215
29	170	249	213	145	---	2880	525	548	543	2700	340	207
30	172	243	152	140	---	2330	515	527	538	3300	321	199
31	181	---	130	135	---	1790	---	522	---	3680	308	---
TOTAL	7007	7411	6646	5537	14573	114098	27575	31793	40235	40189	26279	11480
MEAN	226	247	214	179	520	3681	919	1026	1341	1296	848	383
MAX	351	357	262	576	2640	9330	1660	3410	5160	3680	3140	1140
MIN	161	191	121	110	130	731	515	470	475	352	308	199
AC-FT	13900	14700	13180	10980	28910	226300	54690	63060	79810	79710	52120	22770

CAL YR 1978 TOTAL 253076 MEAN 693 MAX 5650 MIN 121 AC-FT 502000
WTR YR 1979 TOTAL 332823 MEAN 912 MAX 9330 MIN 110 AC-FT 660200

07144780 NORTH FORK NINNESCAH RIVER ABOVE CHENEY RESERVOIR, KS

LOCATION.--Lat 37°50'41", long 97°56'09", in SW¼NE¼SW¼ sec.25, T.25 S., R.6 W., Reno County, Hydrologic Unit 11030014, at downstream side of bridge on State Highway 17, 12 mi (19.3 km) south of Hutchinson, 12.5 mi (20.1 km) upstream from Cheney Dam, and at mile 28.2 (45.4 km).

DRAINAGE AREA.--787 mi^2 (2,040 km^2), of which 237 mi^2 (614 km^2) is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,431.75 ft (436.397 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter periods, which are poor.

AVERAGE DISCHARGE.--14 years, 132 ft^3/s (3.738 m^3/s), 95,630 acre-ft/yr (118 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 43,000 ft^3/s (1,220 m^3/s) Apr. 20, 1974, gage height, 10.80 ft (3.292 m); no flow July 14, 1966, part of day Aug. 23, 1968.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,300 ft^3/s (36.8 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Mar. 18	1215	1,490	42.2	5.90	1.798	June 6	1530	1,490	42.2	5.59	1.704
Mar. 23	0315	* 2,860	81.0	7.13	2.173	July 25	1230	2,740	77.6	6.91	2.106

Minimum discharge, 13 ft^3/s (0.37 m^3/s) Sept. 12, 13, 27-30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47	40	74	39	66	151	173	121	107	61	228	39
2	42	39	73	39	68	166	191	169	104	54	137	37
3	40	39	72	40	72	340	191	222	103	47	112	35
4	37	39	74	41	76	287	204	236	99	44	96	28
5	36	39	76	40	82	225	236	192	96	48	82	26
6	34	43	73	39	82	209	213	160	733	72	70	26
7	36	49	70	38	86	190	180	151	719	116	63	26
8	35	53	72	37	88	176	165	139	417	110	58	23
9	34	53	86	37	90	205	152	128	416	88	53	22
10	36	50	116	38	90	237	148	318	387	77	52	17
11	36	50	122	40	86	217	170	699	345	73	61	15
12	36	55	129	42	78	179	192	357	254	62	71	14
13	33	61	124	45	74	159	174	230	198	48	62	15
14	33	64	105	50	72	140	161	183	161	42	58	15
15	38	64	101	54	72	126	150	158	129	40	55	16
16	36	71	89	60	74	116	145	138	106	41	57	19
17	36	80	75	64	78	118	136	121	86	60	56	20
18	34	81	83	68	84	948	135	115	73	48	48	20
19	34	78	75	72	90	1220	135	111	62	44	44	20
20	36	74	70	74	96	533	142	460	55	41	42	20
21	37	74	68	74	100	354	138	634	53	36	40	21
22	36	79	69	74	106	1280	131	401	52	30	39	20
23	36	78	68	74	112	2000	124	278	183	48	40	20
24	36	75	71	74	120	765	128	220	170	77	39	20
25	38	74	71	72	125	472	119	189	149	1930	40	18
26	39	81	71	68	130	348	113	162	119	818	47	17
27	39	85	67	64	140	281	111	147	99	432	47	14
28	39	83	71	62	150	239	108	136	85	272	44	14
29	39	80	71	62	---	214	107	124	76	196	41	15
30	39	77	60	62	---	193	118	116	69	155	42	13
31	40	---	50	64	---	174	---	114	---	442	44	---
TOTAL	1143	1908	2496	1707	2587	12262	4576	6935	5705	5652	1964	625
MEAN	36.9	63.6	80.5	55.1	92.4	396	153	224	190	182	63.4	20.8
MAX	47	85	129	74	150	2000	236	699	733	1930	228	39
MIN	33	39	50	37	66	116	107	111	52	30	39	13
AC-FT	2270	3780	4950	3390	5130	24320	9080	13760	11320	11210	3900	1240

CAL YR 1978 TOTAL 49561.1 MEAN 136 MAX 2510 MIN 6.3 AC-FT 98300
WTR YR 1979 TOTAL 47560.0 MEAN 130 MAX 2000 MIN 13 AC-FT 94340

07144780 NORTH FORK NINNESCAH RIVER ABOVE CHENEY RESERVOIR, KS--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
MAR					
20...	1130	520	645	700	983
JUN					
06...	1320	1310	280	1760	6230
20...	1035	56	1120	50	7.6
JUL					
03...	1115	46	1060	52	6.5
19...	0845	44	1050	57	6.8
AUG					
07...	1050	62	1030	57	9.5
21...	1230	41	1060	40	4.4
SEP					
18...	1115	20	1010	14	.76

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	BED MAT. FALL DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .125 MM	BED MAT. FALL DIAM. % FINER THAN .250 MM	BED MAT. FALL DIAM. % FINER THAN .500 MM	BED MAT. FALL DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM
OCT									
03...	1420	--	0	10	59	88	94	97	100
APR									
06...	1125	2	10	47	86	95	98	100	--

07144795 NORTH FORK NINNESCAH RIVER AT CHENEY DAM, KS

LOCATION.--Lat 37°43'17", long 97°47'39", in NE¼SW¼SE¼ sec.6, T.27 S., R.4 W., Sedgwick County, Hydrologic Unit 11030014, 1,400 ft (427 m) downstream from Cheney Dam, 6.0 mi (9.7 km) north of Cheney, and at mile 15.5 (24.9 km).

DRAINAGE AREA.--901 mi^2 (2,330 km^2), of which 237 mi^2 (614 km^2) is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1964 to current year.

GAGE.--Water-stage recorder and concrete Parshall flume. Datum of gage is 1,366.022 ft (416.364 m) National Geodetic Vertical Datum of 1929 (Bureau of Reclamation bench mark). Prior to Oct. 1, 1973, at datum 1.00 ft (0.305 m) higher.

REMARKS.--Records good. Flow completely regulated by Cheney Reservoir 1,400 ft (427 m) upstream (see sta 07144790).

AVERAGE DISCHARGE.--15 years, 97.1 ft^3/s (2.750 m^3/s), 70,350 acre-ft/yr (86.7 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,960 ft^3/s (55.5 m^3/s) Apr. 29, 30, 1969, gage height, 5.45 ft (1.661 m); maximum observed gage height, 5.92 ft (1.804 m) Oct. 23, 1973; no flow at times in 1966, 1968.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 900 ft^3/s (25.5 m^3/s) Aug. 3, gage height, 4.23 ft (1.289 m); minimum, 0.09 ft^3/s (0.002 m^3/s) Sept. 22-30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.55	.83	.71	.38	.38	.26	735	.77	134	.38	.52	.14
2	.61	.83	.77	.34	.34	.46	735	1.2	.66	.38	.48	.13
3	.61	.83	1.1	.34	.34	.46	735	.77	.66	.37	557	.12
4	.66	.83	.71	.30	.30	.34	735	212	.71	.41	857	.12
5	.66	.83	.71	.30	.30	.26	735	399	.77	.64	840	.12
6	.71	.89	1.4	.26	.30	.26	735	410	.89	.44	323	.13
7	.77	.77	.77	.26	.26	.26	735	399	.95	.40	.30	.12
8	.77	.77	.71	.23	.26	.26	717	410	1.3	.35	.25	.13
9	.83	.71	.66	.23	.23	.38	735	399	1.2	.31	.25	.14
10	.83	.66	.55	.20	.23	.26	496	59	1.2	.30	.25	.14
11	.89	.66	.55	.20	.20	.23	367	253	1.2	.29	.21	.14
12	.95	.71	.55	.17	.20	.23	367	717	1.4	.24	.19	.14
13	.95	.71	.77	.17	.20	.23	367	717	399	.20	.20	.12
14	1.0	.71	.51	.14	.20	.23	367	717	399	.25	.21	.12
15	1.0	.77	.51	.12	.15	.23	377	717	399	.35	.20	.14
16	1.1	.83	.51	.12	.15	.23	377	717	399	.38	.21	.14
17	1.2	.77	.51	.12	.15	.30	142	225	399	.29	.20	.14
18	1.1	.77	.51	.10	.20	.83	.77	.95	147	.14	.19	.11
19	1.1	.77	.46	.26	.20	.30	.77	1.5	.35	.16	.20	.11
20	1.1	.77	.42	.34	.20	.26	.77	2.6	.28	.19	.22	.12
21	1.0	.83	.46	.34	.20	347	.66	2.3	.25	.21	.18	.11
22	1.0	.83	.42	.34	.20	212	.71	2.3	.30	.20	.17	.11
23	1.0	.77	.42	.30	.20	261	.77	2.2	.34	.45	.16	.11
24	1.0	.83	.51	.50	.22	754	.83	2.3	.28	.38	.17	.11
25	.95	.89	.51	.50	.22	754	.89	225	.35	.48	.17	.11
26	.95	.83	.46	.30	.23	754	.89	388	.41	.36	.16	.11
27	.95	.77	.46	.46	.26	754	.95	388	.46	.37	.14	.11
28	.95	.77	.51	.42	.26	754	1.0	388	.50	.46	.14	.11
29	.89	.77	.46	.42	---	754	.95	399	.55	.61	.14	.11
30	.83	.77	.42	.30	---	735	.77	388	.48	.54	.13	.11
31	.83	---	.38	.38	---	735	---	388	---	.62	.14	---
TOTAL	27.74	23.48	18.40	8.88	6.58	6820.27	9467.73	8931.89	2291.49	11.15	2582.78	3.67
MEAN	.89	.78	.59	.29	.24	220	316	288	76.4	.36	83.3	.12
MAX	1.2	.89	1.4	.50	.38	754	735	717	399	.64	857	.14
MIN	.55	.66	.38	.10	.15	.23	.66	.77	.25	.14	.13	.11
AC-FT	55	47	36	18	13	13530	18780	17720	4550	22	5120	7.3

CAL YR 1978 TOTAL 38304.29 MEAN 105 MAX 964 MIN .23 AC-FT 75980
WTR YR 1979 TOTAL 30194.06 MEAN 82.7 MAX 857 MIN .10 AC-FT 59890

07144790 CHENEY RESERVOIR NEAR CHENEY, KS

LOCATION.--Lat 37°43'34", long 97°47'38", in NW¼NE¼SE¼ sec.6, T.27 S., R.4 W., Sedgwick County, Hydrologic Unit 11030014, in control-house structure at outlet works of Cheney Dam on North Fork Ninnescah River, 6.0 mi (9.7 km) north of Cheney, and at mile 15.9 (25.6 km).

DRAINAGE AREA.--901 mi^2 (2,334 km^2), of which 237 mi^2 (614 km^2) is probably noncontributing.

ELEVATION RECORDS

PERIOD OF RECORD.--November 1964 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation).

REMARKS.--Reservoir is formed by compacted earthfill dam. Storage began Nov. 17, 1964. Total capacity, 566,300 acre-ft (698 hm^3), consisting of the following: Dead storage, 979 acre-ft (1.21 hm^3) below elevation 1,378.5 ft (420.17 m); fish and wildlife storage, 14,310 acre-ft (17.6 hm^3) between elevations 1,378.5 ft (420.17 m) and 1,392.9 ft (424.56 m); conservation pool, 151,800 acre-ft (187 hm^3) between elevations 1,392.9 ft (424.56 m) and 1,421.6 ft (433.30 m); flood control pool, 80,860 acre-ft (99.7 hm^3) between elevations 1,421.6 ft (433.30 m) and 1,429.0 ft (435.56 m), crest of uncontrolled spillway; and uncontrolled storage, 318,300 acre-ft (392 hm^3) between elevations 1,429.0 ft (435.56 m) and 1,447.8 ft (441.29 m). Reservoir is used for supplemental water supply for municipal and industrial uses in the city of Wichita, fish and wildlife conservation, flood control, and recreational purposes in Cheney Division Wichita project. Figures given herein represent total contents.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 1,429.00 ft (435.559 m) Oct. 14, 1973, contents, 247,900 acre-ft (306 hm^3); minimum since conservation pool was first filled, 1,412.33 ft (430.478 m) Dec. 2-4, 1971, contents, 93,300 acre-ft (115 hm^3).

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 1,423.60 ft (433.913 m) Mar. 23, 24, contents, 186,900 acre-ft (230 hm^3); minimum, 1,419.27 ft (432.593 m) Nov. 9, 10, contents, 145,800 acre-ft (180 hm^3).

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on survey by U.S. Bureau of Reclamation computed in 1965)

1,419	143,400	1,423	180,700
1,421	161,400	1,425	201,600

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1419.78	1419.34	1419.58	1419.76	1420.18	1420.85	1422.86	A	1421.59	1421.70	1422.10	1421.16
2	1419.82	1419.34	1419.69	1419.76	1420.19	1421.08	1422.71	A	1421.59	1421.67	1422.10	1421.15
3	1419.77	1419.34	1419.63	1419.76	1420.19	1421.28	1422.66	A	1421.59	1421.65	1422.02	1421.13
4	1419.77	1419.34	1419.62	1419.76	1420.20	1421.30	1422.55	1422.17	1421.60	1421.65	1421.86	1421.11
5	1419.73	1419.36	1419.67	1419.76	1420.21	1421.35	1422.46	A	1421.58	1421.66	1421.70	1421.10
6	1419.70	1419.34	1419.65	1419.77	1420.25	1421.40	1422.34	A	1421.63	1421.66	1421.60	1421.07
7	1419.67	1419.32	1419.66	1419.78	1420.25	1421.44	1422.21	A	1421.80	1421.65	1421.56	1421.04
8	1419.62	1419.30	1419.63	1419.78	1420.27	1421.49	1422.12	A	1421.88	1421.65	1421.53	1420.99
9	1419.62	1419.27	1419.62	1419.78	1420.26	1421.57	1421.97	1421.87	1422.02	1421.66	1421.50	1420.95
10	1419.63	1419.39	1419.62	1419.78	1420.26	1421.65	1421.90	1422.19	1422.03	1421.65	1421.54	1420.92
11	1419.64	1419.33	1419.62	1419.79	1420.29	1421.68	1421.92	1422.25	1422.06	1421.63	1421.50	1420.90
12	1419.65	1419.30	1419.64	1419.81	1420.29	1421.70	1421.89	1422.17	1422.08	1421.61	1421.46	1420.91
13	1419.59	1419.32	1419.65	1419.82	1420.30	1421.78	1421.83	1422.07	1422.08	1421.58	1421.44	1420.85
14	1419.58	1419.36	1419.62	1419.83	1420.34	1421.79	1421.80	1421.97	1421.95	1421.56	1421.44	1420.82
15	1419.56	1419.36	1419.63	1419.83	1420.40	1421.79	1421.75	1421.83	1421.87	1421.54	1421.43	1420.79
16	1419.52	1419.42	1419.68	1419.84	1420.38	1421.76	1421.68	1421.68	1421.78	1421.55	1421.39	1420.76
17	1419.45	1419.42	1419.62	1419.84	1420.38	1421.88	1421.66	1421.62	1421.69	1421.56	1421.40	1420.75
18	1419.49	1419.44	1419.64	1419.93	1420.39	1422.51	1421.65	1421.64	1421.61	1421.55	1421.36	1420.73
19	1419.48	1419.44	1419.65	1419.95	1420.41	1422.76	1421.68	1421.68	1421.64	1421.54	1421.37	1420.67
20	1419.47	1419.44	1419.72	1419.99	1420.44	1422.85	1421.77	1421.83	1421.63	1421.52	1421.37	1420.67
21	1419.43	1419.44	1419.71	1420.00	1420.48	1422.87	1421.77	1421.93	1421.58	1421.49	1421.37	1420.65
22	1419.51	1419.44	1419.71	1420.07	1420.57	1423.38	1421.77	1422.02	1421.71	1421.45	1421.36	1420.62
23	1419.53	1419.46	1419.82	1420.05	1420.61	1423.60	A	1422.08	1421.73	1421.51	1421.34	1420.57
24	1419.38	1419.46	1419.71	1420.05	1420.67	1423.56	A	1422.08	1421.73	1421.55	1421.30	1420.58
25	1419.43	1419.51	1419.74	1420.06	1420.69	1423.50	A	1422.07	1421.73	1421.86	1421.26	1420.58
26	1419.39	1419.59	1419.73	1420.11	1420.71	1423.45	A	1422.00	1421.73	1421.98	1421.28	1420.52
27	1419.38	1419.57	1419.67	1420.11	1420.78	1423.33	A	1421.94	1421.71	1422.03	1421.25	1420.52
28	1419.37	1419.52	1419.67	1420.11	1420.83	1423.24	A	1421.87	1421.73	1422.04	1421.23	1420.52
29	1419.33	1419.58	1419.79	1420.14	---	1423.15	A	1421.80	1421.72	1422.03	1421.22	1420.51
30	1419.33	1419.58	1419.76	1420.17	---	1423.07	A	1421.73	1421.69	1422.04	1421.20	1420.49
31	1419.34	---	1419.76	1420.17	---	1422.93	---	1421.63	---	1422.09	1421.15	---
MEAN	1419.55	1419.41	1419.67	1419.91	1420.40	1422.26	---	---	1421.76	1421.69	1421.47	1420.80
MAX	1419.82	1419.59	1419.82	1420.17	1420.83	1423.60	1422.86	1422.25	1422.06	1422.09	1422.10	1421.16
MIN	1419.33	1419.27	1419.58	1419.76	1420.18	1420.85	1421.65	1421.62	1421.58	1421.45	1421.15	1420.49
(+)	146,400	148,500	150,100	153,800	159,800	180,000	168,700	167,400	167,900	171,800	162,800	156,700
(#)	-8,400	+2,100	+1,600	+3,700	+6,000	+20,200	-11,300	-1,300	+500	+3,900	-9,000	-6,100

CAL YR 1978 .... (#) -22,900
WTR YR 1979 .... (#) +5,900

+ CONTENTS, IN ACRE-FEET, AT END OF MONTH.
# CHANGE IN CONTENTS, IN ACRE-FEET.
A NO GAGE-HEIGHT RECORD.

07145200 SOUTH FORK NINNESCAH RIVER NEAR MURDOCK, KS

LOCATION.--Lat 37°33'51", long 97°51'10", in SW¼SW¼SE¼ sec.34, T.28 S., R.5 W., Kingman County, Hydrologic Unit 11030015, near right bank on downstream side of pier of county highway bridge, 4.0 mi (6.4 km) southeast of Murdock, and at mile 68.0 (109.4 km).

DRAINAGE AREA.--650 mi^2 (1,680 km^2), of which 107 mi^2 (277 km^2) is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1950 to September 1959. Annual maximums, water years 1960-64. June 1964 to current year.

REVISED RECORDS.--WSP 1561: 1957(P).

GAGE.--Water-stage recorder. Datum of gage is 1,357.81 ft (413.860 m) National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark). Prior to Mar. 30, 1951, nonrecording gage, Mar. 30, 1951, to Sept. 30, 1959, water-stage recorder, and Oct. 1, 1959 to June 3, 1964, crest-stage gage, at same site and datum.

REMARKS.--Records fair except those for winter months, which are poor.

AVERAGE DISCHARGE.--24 years (water years 1951-59, 1965-79), 200 ft^3/s (5.664 m^3/s), 144,900 acre-ft/yr (179 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,900 ft^3/s (733 m^3/s) June 26, 1957, gage height, 11.87 ft (3.618 m); maximum gage height, 11.93 ft (3.636 m) Oct. 11, 1973; minimum discharge, 5.0 ft^3/s (0.14 m^3/s) Aug. 5, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,000 ft^3/s (56.6 m^3/s) and maximum (*):

		Discharge		Gage height				Discharge		Gage height	
Date	Time	(ft^3/s)	(m^3/s)	(ft)	(m)	Date	Time	(ft^3/s)	(m^3/s)	(ft)	(m)
Mar. 18	1200	3,140	88.9	7.27	2.216	July 17	0900	2,650	75.0	7.00	2.134
Mar. 22	1900	* 5,610	159	8.27	2.521	July 25	0600	2,400	68.0	6.83	2.082
May 11	0600	4,420	125	7.83	2.387						

Minimum daily discharge, 60 ft^3/s (1.70 m^3/s) Jan. 1-5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	102	104	128	60	96	188	230	172	184	142	180	131
2	95	111	128	60	100	183	230	616	192	136	164	129
3	92	112	122	60	103	674	232	1030	196	121	154	128
4	90	114	120	60	108	359	267	569	200	121	151	119
5	89	114	126	60	115	268	275	343	205	168	148	110
6	90	122	130	65	120	262	234	269	398	139	148	114
7	95	123	145	70	130	256	217	239	225	133	145	101
8	99	102	160	70	135	250	213	215	429	136	136	108
9	94	95	200	70	140	286	199	200	429	130	133	107
10	97	98	298	70	140	373	200	1840	489	124	130	106
11	100	107	396	75	140	331	244	2970	295	121	157	105
12	96	117	366	80	137	286	251	1050	223	118	180	109
13	91	134	352	90	125	268	222	551	179	115	180	108
14	90	129	317	90	118	235	215	380	166	109	164	97
15	91	127	324	100	118	215	205	309	156	100	148	98
16	86	139	245	110	120	210	210	279	153	112	145	103
17	93	151	172	107	130	210	188	260	148	1330	142	105
18	104	143	180	110	135	1780	180	247	137	288	142	103
19	109	127	176	114	140	1530	198	244	135	220	139	96
20	112	117	164	116	150	790	221	310	136	180	133	81
21	116	141	164	118	160	476	208	584	122	154	130	78
22	130	188	164	118	170	2370	188	454	124	142	121	96
23	127	212	168	117	180	2350	165	295	283	172	118	80
24	136	191	176	112	195	1010	157	246	561	215	115	87
25	136	147	172	110	210	543	146	210	221	1640	109	98
26	145	184	160	100	225	403	151	199	192	672	106	89
27	136	171	148	96	220	317	148	203	200	317	103	90
28	123	183	151	90	210	300	150	196	168	250	128	87
29	109	165	151	88	---	283	150	178	157	215	115	83
30	102	137	120	90	---	262	148	159	148	196	95	81
31	103	---	80	92	---	233	---	176	---	188	101	---
TOTAL	3278	4105	5903	2768	4070	17501	6042	14993	6851	8204	4260	3027
MEAN	106	137	190	89.3	145	565	201	484	228	265	137	101
MAX	145	212	396	118	225	2370	275	2970	561	1640	180	131
MIN	86	95	80	60	96	183	146	159	122	100	95	78
AC-FT	6500	8140	11710	5490	8070	34710	11980	29740	13590	16270	8450	6000

CAL YR 1978 TOTAL 78677 MEAN 216 MAX 5750 MIN 46 AC-FT 156100
WTR YR 1979 TOTAL 81002 MEAN 222 MAX 2970 MIN 60 AC-FT 160700

07144850 SOUTH FORK SOUTH FORK NINNESCAH RIVER NEAR PRATT, KS

LOCATION.--Lat 37°35'10", long 98°49'40", in NW¼NW¼ sec.26, T.28 S., R.14 W., Pratt County, Hydrologic Unit 11030015, at downstream side of highway bridge, 6.0 mi (9.7 km) southwest of Pratt, and 6.5 mi (10.5 km) upstream from mouth.

DRAINAGE AREA.--21 mi^2 (54 km^2), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1961 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,920 ft (585 m), from topographic map.

REMARKS.--Records poor.

AVERAGE DISCHARGE.--18 years, 2.66 ft^3/s (0.075 m^3/s), 1,930 acre-ft/yr (2.38 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,050 ft^3/s (200 m^3/s) Apr. 20, 1974, gage height, 10.05 ft (3.063 m); no flow for most days.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 100 ft^3/s (2.83 m^3/s) and maximum (*):

Date	Time		Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Mar. 18	unknown		312	8.84	4.20	1.280
May 2	0800		156	4.42	3.65	1.112
May 10	0300	*	492	13.9	4.73	1.442

Minimum discharge, no flow for most days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	35	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	2.7	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.03	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	2.0	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	7.5	1.4	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.50	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	4.5	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	9.4	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	99	2.9	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	2.2	.01	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.03	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	90	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	6.0	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	3.0	.00	8.0	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	1.0	.00	.40	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	10	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	2.0	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.7	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.00	.00	.00	.00	.00	112.00	.00	147.36	26.81	4.10	.00	.00
MEAN	.000	.000	.000	.000	.000	3.61	.000	4.75	.89	.13	.000	.000
MAX	.00	.00	.00	.00	.00	90	.00	99	9.4	2.7	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	222	.00	292	53	8.1	.00	.00

CAL YR 1978 TOTAL 1172.93 MEAN 3.21 MAX 362 MIN .00 AC-FT 2330
WTR YR 1979 TOTAL 290.27 MEAN .80 MAX 99 MIN .00 AC-FT 576

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

REMARKS.--No flow on many days during period of record. Sediment samples are collected only at selected flow conditions.

07145500 NINNESCAH RIVER NEAR PECK, KS

LOCATION.--Lat 37°27'34", long 97°25'20", in NW¼SW¼NW¼ sec.10, T.30 S., R.1 W., Sumner County, Hydrologic Unit 11030016, at downstream side of highway bridge, 3.0 mi (4.8 km) southwest of Peck, and at mile 31.6 (50.8 km).

DRAINAGE AREA.--2,129 mi² (5,514 km²), of which 344 mi² (891 km²) is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1937 to current year. Prior to April 1938 monthly discharge only, published in WSP 1311.

REVISED RECORDS.--WSP 1117: Drainage area. WSP 1211: 1944(M). WSP 1241: 1944, 1945(M), 1947-48(M).

GAGE.--Water-stage recorder. Datum of gage is 1,222.38 ft (372.581 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Feb. 4, 1939, nonrecording gage at present site and datum.

REMARKS.--Records good except those for winter periods, which are poor. Flow partially regulated by Cheney Reservoir since 1964 (see sta 07144790).

AVERAGE DISCHARGE.--42 years, 502 ft³/s (14.22 m³/s), 363,700 acre-ft/yr (448 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 38,200 ft³/s (1,080 m³/s) May 17, 1937, gage height, 21.85 ft (6.660 m); minimum daily, 0.20 ft³/s (0.0057 m³/s) Sept. 3, 1956.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since at least 1922, 26.4 ft (8.047 m) June 9, 1923, from floodmark, discharge, about 70,000 ft³/s (2,000 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,500 ft³/s (99.1 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 19	0300	* 9,440	267	13.95	4.252	May 11	0400	5,080	144	9.95	3.033
Mar. 22	2300	6,300	178	11.16	3.402	July 17	1600	5,410	153	10.29	3.136

Minimum discharge, 31 ft³/s (1.02 m³/s) Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	86	94	133	80	130	337	1180	239	665	168	187	77
2	83	94	134	80	140	438	1150	504	484	157	173	82
3	80	96	121	80	150	2200	1150	2570	320	131	157	72
4	78	96	91	80	150	1260	1220	1340	289	117	408	67
5	75	96	80	80	150	549	1270	920	278	153	899	64
6	73	111	80	90	150	421	1230	858	730	372	914	68
7	75	110	85	90	150	363	1160	780	694	203	550	59
8	75	111	90	90	150	325	1140	734	1170	177	200	55
9	79	113	100	90	150	301	1110	703	1870	169	144	51
10	80	111	126	90	150	325	1110	1520	1590	155	127	49
11	80	111	151	100	170	380	1290	4200	869	138	128	47
12	80	116	192	100	170	330	910	2440	539	125	131	47
13	76	124	232	100	170	289	795	1770	408	126	130	45
14	73	127	207	100	170	267	731	1450.	466	117	119	44
15	76	131	222	100	170	253	706	1290	626	106	109	46
16	78	141	201	120	200	241	695	1200	597	113	109	46
17	80	153	178	120	200	242	678	1130	581	4180	109	49
18	80	152	159	120	200	3340	502	740	575	2060	103	52
19	81	142	154	140	300	5880	348	451	421	644	97	51
20	82	134	148	150	438	1800	349	445	250	374	98	50
21	87	128	143	170	531	1040	347	618	209	276	95	51
22	87	130	140	170	729	4000	313	776	211	224	87	49
23	84	135	140	180	1000	5020	293	569	218	198	80	49
24	83	135	136	190	875	2550	279	446	308	203	79	48
25	88	146	140	190	694	1900	276	388	528	866	79	51
26	91	157	140	190	580	1540	261	474	297	2140	82	47
27	95	147	143	170	471	1370	250	695	231	780	94	43
28	94	142	136	160	430	1270	246	700	201	437	91	43
29	94	139	140	150	---	1240	244	695	183	318	90	43
30	93	135	100	140	---	1210	238	681	173	238	96	40
31	94	---	90	130	---	1170	---	670	---	199	82	---
TOTAL	2560	3757	4332	3840	8968	41851	21471	31996	15981	15664	5847	1585
MEAN	82.6	125	140	124	320	1350	716	1032	533	505	189	52.8
MAX	95	157	232	190	1000	5880	1290	4200	1870	4180	914	82
MIN	73	94	80	80	130	241	238	239	173	106	79	40
AC-FT	5080	7450	8590	7620	17790	83010	42590	63460	31700	31070	11600	3140

CAL YR 1978 TOTAL 145305 MEAN 398 MAX 5690 MIN 33 AC-FT 288200
WTR YR 1979 TOTAL 157852 MEAN 432 MAX 5880 MIN 40 AC-FT 313100

07145200 SOUTH FORK NINNESCAH RIVER NEAR MURDOCK, KS--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1962 to current year.

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)
JUN					
13...	1015	179	1115	82	40
JUL					
18...	1350	255	800	192	132
AUG					
27...	1620	105	1300	47	13

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	BED MAT. FALL DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .125 MM	BED MAT. FALL DIAM. % FINER THAN .250 MM	BED MAT. FALL DIAM. % FINER THAN .500 MM	BED MAT. FALL DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM
OCT											
13...	1155	--	0	18	73	91	95	97	99	100	--
MAY											
09...	0840	0	3	19	70	90	94	97	98	99	100

07145500 NINNESCAH RIVER NEAR PECK, KS--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1961 to current year.

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)
MAR					
06...	1300	417	785	241	271
APR					
10...	1330	1110	875	107	321

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	BED MAT. FALL DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .125 MM	BED MAT. FALL DIAM. % FINER THAN .250 MM	BED MAT. FALL DIAM. % FINER THAN .500 MM	BED MAT. FALL DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM
OCT								
10...	1515	0	0	14	71	96	99	100
JUN								
26...	1215	--	0	13	74	98	99	100

07145700 SLATE CREEK AT WELLINGTON, KS

LOCATION.--Lat 37°15'00", long 97°24'12", in SE¼NE¼SE¼ sec.22, T.32 S., R.1 W., Sumner County, Hydrologic Unit 11030013, on right bank at upstream side of U.S. Highway 81 bridge, at southern edge of Wellington.

DRAINAGE AREA.--154 mi^2 (399 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1954-66. Annual maximum, water years 1960-69. April 1969 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,157.24 ft (352.727 m) National Geodetic Vertical Datum of 1929. Prior to Apr. 1, 1969, crest-stage gage at present site and at datum 3.0 ft (0.91 m) higher.

REMARKS.--Records good.

AVERAGE DISCHARGE.--10 years (water years 1970-79), 60.9 ft^3/s (1.725 m^3/s), 44,120 acre-ft/yr (54.4 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,500 ft^3/s (807 m^3/s) June 17, 1975, gage height, 25.82 ft (7.870 m), from rating curve extended above 18,000 ft^3/s (510 m^3/s); no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft^3/s (28.3 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Mar. 3	0300	1,480	41.9	15.53	4.734	Apr. 11	1500	1,140	32.3	13.93	4.246
Mar. 19	1300	2,700	76.5	19.12	5.828	June 23	0700	2,210	62.6	18.08	5.511
Mar. 23	0200	* 3,360	95.2	20.18	6.151						

Minimum discharge, 0.12 ft^3/s (0.003 m^3/s) Sept 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	1.2	8.5	8.1	11	32	46	13	8.2	8.2	1.9	.84
2	1.2	1.4	8.2	7.2	11	168	38	16	8.1	144	1.8	2.7
3	.81	1.6	7.7	7.2	10	1390	34	243	7.8	21	1.7	.25
4	.78	1.6	7.5	7.4	10	179	96	174	7.6	7.7	1.1	.18
5	.79	1.4	7.9	7.6	10	48	72	36	7.3	5.5	.75	.22
6	.75	6.6	8.0	7.7	10	33	48	23	7.0	12	.48	1.7
7	.77	4.5	7.6	8.0	10	26	31	18	6.9	7.2	.31	.60
8	.81	5.7	6.8	8.2	9.8	22	25	16	7.0	5.5	.21	.28
9	1.9	5.0	7.0	8.2	9.6	20	21	14	12	4.3	.19	.25
10	1.3	4.4	7.3	8.2	9.6	18	20	19	9.9	3.9	.21	.23
11	1.3	2.8	7.7	8.2	11	17	715	279	11	3.4	.25	.20
12	1.4	3.6	8.3	8.4	17	16	176	48	10	2.8	.23	.20
13	.77	5.6	8.6	8.5	22	16	43	24	7.5	2.3	.20	.18
14	.56	5.4	8.6	8.4	41	14	31	19	6.4	2.0	.34	.20
15	.56	5.8	8.6	8.8	88	14	26	17	5.8	1.7	.38	.20
16	1.0	6.6	8.7	8.8	66	13	23	14	5.1	2.3	.31	.20
17	.78	6.6	8.2	9.0	55	13	21	12	4.7	6.4	.28	.17
18	.77	6.8	8.4	11	26	637	21	12	4.9	27	.28	.20
19	.68	7.4	9.1	16	16	1770	21	12	6.4	13	.19	.20
20	.71	6.8	9.1	23	44	139	131	42	5.6	6.9	.19	.20
21	.74	6.6	8.6	25	86	65	37	23	4.3	4.7	.20	.24
22	.79	7.0	8.4	32	230	2070	21	14	75	3.2	.22	.24
23	.82	7.4	8.5	45	365	1960	19	12	1300	2.7	.26	.20
24	.84	7.0	8.4	25	120	128	17	10	65	2.7	1.2	.20
25	1.2	9.6	8.3	22	49	99	16	9.3	33	2.4	1.1	.24
26	.98	71	8.4	17	25	44	15	9.2	16	3.5	.20	.20
27	.87	50	8.5	15	20	35	15	9.0	11	12	.17	.20
28	.87	19	8.6	13	30	32	14	8.6	9.0	6.4	.17	.20
29	.87	12	8.8	12	---	30	14	8.5	7.6	4.0	.16	.20
30	.87	9.6	8.5	12	---	27	13	8.1	7.7	2.4	.16	.20
31	.94	---	8.5	11	---	24	---	7.8	---	2.7	.19	---
TOTAL	28.63	290.0	255.3	416.9	1412.0	9059	1784	1170.5	1677.8	333.0	15.33	11.32
MEAN	.92	9.67	8.24	13.4	50.4	292	59.5	37.8	55.9	10.8	.49	.38
MAX	1.9	71	9.1	45	365	2070	715	279	1300	144	1.9	2.7
MIN	.56	1.2	6.8	7.2	9.6	13	13	7.8	4.3	1.7	.16	.17
AC-FT	57	575	506	827	2800	17970	3540	2320	3330	662	30	22

CAL YR 1978 TOTAL 7680.58 MEAN 21.0 MAX 832 MIN .18 AC-FT 15230
WTR YR 1979 TOTAL 16454.58 MEAN 45.1 MAX 2070 MIN .15 AC-FT 32640

07145700 SLATE CREEK AT WELLINGTON, KS--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

REMARKS.--Sediment samples are collected only at selected flow conditions.

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
NOV					
28...	1000	20	600	94	5.1
MAR					
06...	1530	33	96	96	8.6
JUL					
31...	1540	3.6	700	61	.59

07146500 ARKANSAS RIVER AT ARKANSAS CITY, KS

(National stream-quality accounting network, pesticide and radiochemical station)

LOCATION.--Lat 37°03'23", long 97°03'32", in NE¼NE¼NE¼ sec.35, T.34 S., R.3 E., Cowley County, Hydrologic Unit 11030013, near left bank at downstream side of bridge on U.S. Highway 166, 0.1 mi (0.2 km) downstream from St. Louis - San Francisco Railway Co. bridge, 0.5 mi (0.8 km) west of Arkansas City, 5.4 mi (8.7 km) upstream from Walnut River and at mile 701.4 (1,128.6 km).

DRAINAGE AREA.--43,713 mi² (113,220 km²), of which 7,607 mi² (19,700 km²) is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1902 to September 1906, September 1921 to current year. Published as "near Arkansas City" 1903-4. Monthly discharge only for some periods, published in WSP 1311.

REVISED RECORDS.--WSP 1311: 1905. WSP 1341: 1922-23, 1927, 1929, 1931, 1933, 1940, 1945-46(M), drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,050.04 ft (320.052 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Sept. 23, 1902, to July 31, 1906, nonrecording gage at site 0.5 mi (0.8 km) upstream at datum 9.5 ft (2.90 m) higher. Sept. 10, 1921, to Sept. 27, 1929, nonrecording gage and Sept. 28, 1929, to Aug. 28, 1956, water-stage recorder at site 0.5 mi (0.8 km) upstream at datum 2.97 ft (0.905 m) higher than present datum.

REMARKS.--Records fair except those for winter periods, which are poor. Flow moderately regulated by John Martin Reservoir since 1943 (see sta 07130000) and Cheney Reservoir since 1964 (see sta 07144790). Diversions above station for irrigation.

AVERAGE DISCHARGE.--62 years, 1,811 ft³/s (51.29 m³/s), 1,312,000 acre-ft/yr (1.62 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 103,000 ft³/s (2,920 m³/s) June 10, 1923, gage height, 25.46 ft (7.760 m), from floodmarks, site and datum then in use, from rating curve extended above 8,000 ft³/s (226.6 m³/s) on basis of field estimate, maximum gage height, 25.55 ft (7.788 m) May 18, 1957; minimum discharge, 1.0 ft³/s (0.028 m³/s) Oct. 9, 1921, result of diversion by local power canal.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since at least 1877, 25.55 ft (7.788 m) May 18, 1957, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 10,000 ft³/s (283 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 20	0600	19,800	561	17.11	5.215
Mar. 22	2400	*20,300	575	17.23	5.252

Minimum discharge, 80 ft³/s (2.26 m³/s) Dec. 8, result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	768	340	434	250	270	2500	3540	1260	1360	1050	4340	542
2	668	334	428	225	270	2250	3370	1310	1340	967	3680	542
3	569	340	393	200	270	6030	3060	1950	1260	1060	3160	953
4	513	338	381	200	270	8150	3070	4300	1030	1050	2880	922
5	465	331	345	200	270	7750	3310	3380	936	835	2310	716
6	425	384	316	200	270	5780	3080	2280	992	1280	2530	644
7	402	385	306	200	270	5220	2920	2080	1270	2320	2340	1030
8	381	439	141	200	270	3740	2790	2600	1680	3220	2150	912
9	372	376	214	200	270	2540	2690	2410	6780	2870	1660	707
10	366	358	302	200	270	2150	2600	2200	7160	2590	1420	600
11	361	343	422	210	280	1850	2790	2600	4480	1970	1280	509
12	352	354	482	220	300	1830	3830	5640	2840	1270	1230	478
13	329	391	471	220	310	1900	2840	4240	1900	1030	1160	462
14	329	390	427	220	330	1600	2400	3220	1440	883	1150	446
15	317	445	435	230	350	1370	2220	2630	1180	794	1120	429
16	284	459	471	240	375	1230	2110	2450	1180	724	1030	414
17	259	484	502	250	400	1140	2040	2320	1130	714	984	402
18	268	555	509	275	500	1490	1970	2180	1060	4130	953	393
19	260	493	490	325	700	8640	1940	1920	1030	4000	878	391
20	284	470	486	350	900	17000	1810	1860	1050	2720	822	388
21	295	431	485	400	1100	11000	2300	2460	851	2550	834	379
22	271	414	476	500	1670	13100	2010	4080	766	2420	822	354
23	265	421	466	600	1750	19700	1680	3300	4270	1670	826	339
24	304	424	453	500	1910	17500	1560	2420	7860	1390	595	321
25	307	454	445	400	1900	11800	1490	1870	5200	1240	703	294
26	316	474	406	375	2630	10000	1440	1610	3000	1200	648	291
27	329	621	389	350	3150	8670	1390	1480	2030	2910	594	311
28	337	665	421	300	3040	7060	1350	1510	1580	2470	579	288
29	342	527	426	300	---	5330	1330	1540	1290	2760	568	282
30	344	472	409	280	---	4580	1300	1510	1120	3330	554	278
31	344	---	300	270	---	3960	---	1400	---	4260	537	---
TOTAL	11426	12912	12631	8890	24295	196860	70230	76010	69065	61677	44337	15017
MEAN	369	430	407	287	868	6350	2341	2452	2302	1990	1430	501
MAX	768	665	509	600	3150	19700	3830	5640	7860	4260	4340	1030
MIN	259	331	141	200	270	1140	1300	1260	766	714	537	278
AC-FT	22660	25610	25050	17630	48190	390500	139300	150800	137000	122300	87940	29790

CAL YR 1978 TOTAL 453845 MEAN 1243 MAX 6970 MIN 122 AC-FT 900200
WTR YR 1979 TOTAL 603350 MEAN 1653 MAX 19700 MIN 141 AC-FT 1197000

07146500 ARKANSAS RIVER AT ARKANSAS CITY, KS--Continued

(National stream-quality accounting network, pesticide and radiochemical station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1952 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1951 to current year.
WATER TEMPERATURES: October 1951 to current year.
SUSPENDED-SEDIMENT DISCHARGE: September 1961 to September 1975.

COOPERATION.--Pesticide analyses were prepared by Environmental Protection Agency, samples were collected and analyses reviewed by U.S. Geological Survey.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 6,530 micromhos June 2, 1967; minimum, 162 micromhos Nov. 17, 1964.
WATER TEMPERATURES: Maximum, 38.0°C July 25, Aug. 5, 1964; minimum, 0.0°C on several days during winter periods.

EXTREMES FOR CURRENT YEAR OF DAILY RECORD.--
SPECFIC CONDUCTANCE: Maximum daily, 2,730 micromhos Dec. 9; minimum daily, 351 micromhos March 23.
WATER TEMPERATURES: Maximum daily, 32.5°C July 16, minimum daily, 0.0°C on several days during winter period.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	*STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
OCT 04...	501	1620	8.9	19.0	23	14.3	330	K15	270	97	79	17
NOV 01...	364	2000	8.4	17.0	1.7	12.4	K44	K6	330	140	95	22
DEC 05...	380	1970	8.1	6.5	9.0	12.6	K43	36	330	150	96	21
JAN 09...	330	2115	7.6	.0	4.5	4.3	>12000	8600	430	260	130	26
FEB 07...	275	1870	8.2	.0	2.5	7.9	3800	K440	340	120	100	21
MAR 08...	4291	550	7.6	5.5	840	--	34000	82000	120	50	37	6.9
APR 18...	1950	1710	8.7	17.0	35	11.7	3100	220	250	79	70	18
MAY 30...	1360	1440	8.7	24.0	80	8.3	2700	K120	230	110	63	17
JUN 19...	1090	1540	9.2	25.0	25	9.7	410	280	240	110	63	20
JUL 11...	26	740	9.1	30.5	250	7.0	37000	6800	130	42	40	8.5
AUG 07...	2460	840	8.5	29.0	160	8.2	3000	K600	170	49	51	10
SEP 18...	384	1950	9.2	25.0	10	16.2	<1700	76	280	110	80	20

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	PHYTO-PLANK-TON, TOTAL (CELLS PER ML)
OCT 04...	260	6.9	7.7	173	130	390	.5	11	983	1.34	1330	--
NOV 01...	320	7.7	7.7	190	150	490	.4	7.1	1230	1.67	1210	27000
DEC 05...	280	6.7	8.0	180	140	450	.4	12	1170	1.59	1200	--
JAN 09...	340	7.1	7.4	240	160	500	.6	14	1350	1.84	1200	--
FEB 07...	250	5.9	7.2	220	130	400	.4	16	1130	1.54	839	1500
MAR 08...	71	2.8	6.8	80	52	100	.3	8.4	334	.45	3870	--
APR 18...	230	6.3	2.4	170	100	350	.4	5.0	935	1.27	4920	--
MAY 30...	210	6.1	6.7	120	120	320	.4	1.4	780	1.06	2860	250000
JUN 19...	230	6.5	7.1	130	140	330	.5	3.1	842	1.15	2480	180000
JUL 11...	94	3.5	9.1	93	55	140	.4	10	414	.56	29.1	--
AUG 07...	99	3.3	8.8	120	61	140	.4	13	464	.63	3080	--
SEP 18...	280	7.3	7.7	170	180	410	.6	6.5	1100	1.50	1140	--

K RESULTS BASED ON COLONY COUNT OUTSIDE THE ACCEPTABLE RANGE (NON-IDEAL COLONY COUNT).

07146500 ARKANSAS RIVER AT ARKANSAS CITY, KS--Continued
(National stream-quality accounting network, pesticide and radiochemical station)

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	NITRO-GEN, DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRU-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITHO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)
OCT												
04...	--	.60	--	.34	2.3	.57	2.9	1.2	.79	11	--	--
NOV												
01...	--	1.3	--	.00	1.5	.79	2.8	1.4	1.3	--	4.4	1.4
DEC												
05...	--	1.5	--	1.7	2.7	2.4	4.2	1.3	1.2	--	--	--
JAN												
09...	--	--	--	--	--	--	--	1.3	1.4	6.7	--	--
FEB												
07...	--	1.2	--	3.9	4.6	4.4	5.8	1.6	1.5	--	5.6	.6
MAR												
08...	--	.49	--	.10	2.1	1.5	2.6	.46	.25	37	--	--
APR												
18...	--	.49	--	.41	1.7	.56	2.2	.45	.30	11	--	--
MAY												
30...	--	.02	--	.02	2.2	.34	2.2	.38	.01	--	8.9	22
JUN												
19...	--	.01	--	.01	1.4	.15	1.4	.01	.61	15	--	--
JUL												
11...	--	1.2	--	.07	2.2	.93	3.4	.81	.38	26	--	--
AUG												
07...	--	.92	--	.06	1.5	.57	2.4	.73	.09	--	14	3.5
SEP												
18...	.96	.46	.02	.10	1.9	.94	2.4	1.5	.93	1.1	--	--

DATE	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BARIUM, SUS-PENDED RECOV-ERABLE (UG/L AS BA)	BARIUM, DIS-SOLVED (UG/L . AS BA)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM SUS-PENDED RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECUV-ERABLE (UG/L AS CR)	CHRO-MIUM, SUS-PENDED RECOV. (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)
NOV												
01...	5	7	200	200	0	1	0	1	0	0	0	2
JAN												
09...	--	3	--	--	200	--	--	1	--	--	0	--
FEB												
07...	2	2	100	0	100	1	0	2	0	0	0	2
MAY												
30...	4	3	200	0	200	2	1	1	10	0	10	2
AUG												
07...	5	4	200	0	200	2	1	<1	30	30	0	4

DATE	COBALT, SUS-PENDED RECOV-ERABLE (UG/L AS CO)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, SUS-PENDED RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)
NOV												
01...	0	0	7	2	5	420	60	2	0	60	20	.2
JAN												
09...	--	1	--	--	3	--	100	--	4	--	360	--
FEB												
07...	0	<3	5	3	2	250	70	22	7	160	140	.0
MAY												
30...	2	0	16	12	4	3000	20	13	0	170	10	.2
AUG												
07...	1	<3	27	19	8	11000	90	16	2	300	<1	.2

DATE	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, SUS-PENDED TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SULVED (UG/L AS SE)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, SUS-PENDED RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)
NOV											
01...	.1	.1	0	0	3	20	0	28	0	0	0
JAN											
09...	--	.0	--	--	1	--	--	20	--	--	0
FEB											
07...	.0	.0	1	0	1	40	30	8	1	0	1
MAY											
30...	.0	.3	1	0	1	40	40	0	0	0	0
AUG											
07...	.1	.1	1	0	1	40	30	8	0	0	0

07146500 ARKANSAS RIVER AT ARKANSAS CITY, KS--Continued
(National stream-quality accounting network, pesticide and radiochemical station)

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	PCB, TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLOR-DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI-AZINON, TOTAL (UG/L)	DI-ELDRIN TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)
NOV										
01...	--	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB										
07...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY										
30...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	HEPTA-CHLOR, TOTAL (UG/L)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALA-THION, TOTAL (UG/L)	METH-OXY-CHLOR, TOTAL (UG/L)	METHYL PARA-THION, TOTAL (UG/L)	METHYL TRI-THION, TOTAL (UG/L)	PARA-THION, TOTAL (UG/L)	TOX-APHENE, TOTAL (UG/L)	TOTAL TRI-THION (UG/L)
NOV										
01...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB										
07...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY										
30...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

ND NOT DETECETED; DETECTION LIMIT IS 0.01 UG/L.

DATE	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLOR-DANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DI-AZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DI-ELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
NOV										
01...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	HEPTA-CHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTA-CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALA-THION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METH-OXY-CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARA-THION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRI-THION, TOT. IN BOTTOM MATL. (UG/KG)	PARA-THION, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOXA-PHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRI-THION, TOTAL IN BOTTOM MATERIAL (UG/KG)
NOV										
01...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

ND NOT DETECTED; DETECTION LIMIT IS 0.10 UG/KG.

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L)	URANIUM DIS-SOLVED, EXTRAC-TION (UG/L)
OCT									
04...	<11	1.5	--	9.1	1.9	8.5	1.9	.20	3.7
MAY									
30...	<13	5.3	3.6	<6.0	4.9	<5.6	4.8	.12	2.8

07146500 ARKANSAS RIVER AT ARKANSAS CITY, KS--Continued
(National stream-quality accounting network, pesticide and radiochemical station)

PHYTOPLANKTON ANALYSES, JULY 1978 TO JUNE 1979

DATE	JUL 12,78		AUG 3,78		SEP 7,78		NOV 1,78	
TIME	1130		0900		1000		1600	
TOTAL CELLS/ML	840000		68000		330000		27000	
DIVERSITY: DIVISION	1.3		1.1		0.8		0.8	
.CLASS	1.3		1.1		0.8		0.8	
..ORDER	1.7		1.1		1.0		1.4	
...FAMILY	2.0		2.3		2.1		1.7	
....GENUS	2.4		3.0		3.1		2.3	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...OOCYSTACEAE								
....GLOEOACTINIUM	--	-	1700	2	--	-	--	-
...CHARACIACEAE								
....SCHROEDERIA	*	0	830	1	--	-	--	-
...COELASTRACEAE								
....COELASTRUM	9500	1	6100	9	--	-	--	-
...MICRACTINIACEAE								
....GOLENKINIA	*	0	*	0	2600	1	--	-
....MICRACTINIUM	12000	1	9400	14	43000	13	--	-
...OOCYSTACEAE								
....ANKISTRODESMUS	*	0	2800	4	3900	1	210	1
....CHODATELLA	--	-	--	-	6500	2	210	1
....DICTYOSPHAERIUM	24000	3	550	1	5200	2	--	-
....FRANCEIA	*	0	--	-	--	-	--	-
....KIRCHNERIELLA	5300	1	--	-	--	-	--	-
....OOCYSTIS	*	0	--	-	3900	1	--	-
....SELENASTRUM	--	-	--	-	39000	12	1100	4
....TETRAEDRON	--	-	--	-	*	0	--	-
....TREUBARIA	--	-	420	1	--	-	--	-
...SCENEDESMACEAE								
....ACTINASTRUM	100000	12	15000#	22	57000#	17	--	-
....CRUCIGENIA	--	-	--	-	5200	2	--	-
....SCENEDESMUS	37000	4	4400	7	96000#	29	3800	14
....TETRASTRUM	9500	1	1100	2	5200	2	--	-
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	*	0	--	-	5200	2	1100	4
....CHLOROGONIUM	--	-	--	-	--	-	--	-
...VOLVOCACEAE								
....GONIUM	--	-	--	-	--	-	--	-
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..PENNALES								
...NAVICULACEAE								
....ENTOMONEIS	--	-	--	-	--	-	1500	5
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	85000	10	1800	3	17000	5	13000#	47
....MELOSIRA	10000	1	--	-	2600	1	--	-
....SKELETONEMA	--	-	--	-	--	-	5100#	19
....STEPHANODISCUS	--	-	970	1	--	-	--	-
..PENNALES								
...GOMPHONEMATACEAE								
....GOMPHONEMA	--	-	--	-	--	-	--	-
...NAVICULACEAE								
....NAVICULA	--	-	--	-	--	-	--	-
...NITZSCHIACEAE								
....NITZSCHIA	11000	1	--	-	2600	1	1500	5
CRYPTOPHYTA (CRYPTOMONADS)								
.CRYPTOPHYCEAE								
..CRYPTOMONADALES								
...CRYPTOMONADACEAE								
....CRYPTOMONAS	--	-	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..CHROOCOCCALES								
...CHROOCOCCACEAE								
....AGMENELLUM	480000#	57	21000#	31	31000	9	--	-
....ANACYSTIS	--	-	1100	2	--	-	--	-
....COCCOCHLORIS	--	-	420	1	--	-	--	-
..HORMOGONALES								
...NOSTOCACEAE								
....ANABAENA	11000	1	--	-	--	-	--	-
....ANABAENOPSIS	8300	1	--	-	--	-	--	-
...OSCILLATORIACEAE								
....OSCILLATORIA	23000	3	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)								
.EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
....EUGLENA	*	0	--	-	--	-	--	-
....TRACHELOMONAS	*	0	--	-	*	0	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

07146500 ARKANSAS RIVER AT ARKANSAS CITY, KS--Continued
(National stream-quality accounting network, pesticide and radiochemical station)

PHYTOPLANKTON ANALYSES, JULY 1978 TO JUNE 1979

DATE	FEB 7,79	MAY 30,79	JUN 19,79
TIME	1600	1700	1630
TOTAL CELLS/ML	1500	250000	180000
DIVERSITY: DIVISION	1.2	1.5	1.1
.CLASS	1.2	1.5	1.1
..ORDER	1.7	1.7	1.5
...FAMILY	2.2	1.9	2.5
....GENUS	2.3	2.9	3.2

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)						
.CHLOROPHYCEAE						
..CHLOROCOCCALES						
...OOCYSTACEAE						
....GLOEOACTINIUM	--	-	--	-	--	-
...CHARACIACEAE						
....SCHROEDERIA	--	-	*	0	--	-
...COELASTRACEAE						
....COELASTRUM	--	-	--	-	4000	2
...MICRACTINIACEAE						
....GOLENKINIA	--	-	1900	1	1100	1
....MICRACTINIUM	--	-	1900	1	30000#	16
...OOCYSTACEAE						
....ANKISTRODESMUS	--	-	4500	2	4000	2
....CHODATELLA	--	-	--	-	*	0
....DICTYOSPHAERIUM	--	-	--	-	--	-
....FRANCEIA	--	-	--	-	--	-
....KIRCHNERIELLA	--	-	--	-	--	-
....OOCYSTIS	--	-	--	-	--	-
....SELENASTRUM	--	-	1300	1	5200	3
....TETRAEDRON	--	-	--	-	*	0
....TREUBARIA	--	-	--	-	*	0
...SCENEDESMACEAE						
....ACTINASTRUM	--	-	5200	2	18000	10
....CRUCIGENIA	--	-	--	-	--	-
....SCENEDESMUS	76	5	30000	12	54000#	29
....TETRASTRUM	--	-	7700	3	4600	3
..VOLVOCALES						
...CHLAMYDOMONADACEAE						
....CHLAMYDOMONAS	76	5	3900	2	2900	2
....CHLOROGONIUM	--	-	--	-	*	0
...VOLVOCACEAE						
....GONIUM	--	-	--	-	9200	5
CHRYSOPHYTA						
.BACILLARIOPHYCEAE						
..PENNALES						
...NAVICULACEAE						
....ENTOMONEIS	--	-	--	-	--	-
..CENTRALES						
...COSCINODISCACEAE						
....CYCLOTELLA	120	8	20000	8	24000	13
....MELOSIRA	38	2	22000	9	1100	1
....SKELETONEMA	--	-	--	-	--	-
....STEPHANODISCUS	--	-	100000#	39	--	-
..PENNALES						
...GOMPHONEMATACEAE						
....GOMPHONEMA	9	1	--	-	--	-
...NAVICULACEAE						
....NAVICULA	220	14	--	-	--	-
...NITZSCHIACEAE						
....NITZSCHIA	620#	41	6400	3	4600	3
CRYPTOPHYTA (CRYPTOMONADS)						
.CRYPTOPHYCEAE						
..CRYPTOMONADALES						
...CRYPTOMONADACEAE						
....CRYPTOMONAS	--	-	1900	1	*	0
CYANOPHYTA (BLUE-GREEN ALGAE)						
.CYANOPHYCEAE						
..CHROOCOCCALES						
...CHROOCOCCACEAE						
....AGMENELLUM	--	-	31000	12	--	-
....ANACYSTIS	--	-	15000	6	17000	9
....COCCOCHLORIS	--	-	--	-	--	-
..HORMOGONALES						
...NOSTOCACEAE						
....ANABAENA	--	-	--	-	--	-
....ANABAENOPSIS	--	-	--	-	--	-
...OSCILLATORIACEAE						
....OSCILLATORIA	380#	25	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)						
.EUGLENOPHYCEAE						
..EUGLENALES						
...EUGLENACEAE						
....EUGLENA	--	-	*	0	--	-
....TRACHELOMONAS	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

07146500 ARKANSAS RIVER AT ARKANSAS CITY, KS--Continued
(National stream-quality accounting network, pesticide and radiochemical station)

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	TEMPER-ATURE (DEG C)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
OCT			
01...	0550	24.5	320
04...	0900	15.0	380
04...	1400	19.0	390
13...	0750	14.0	470
21...	1005	15.0	490
NOV			
01...	1600	17.0	490
08...	0830	8.0	420
12...	1535	10.0	560
18...	1045	6.0	350
21...	0720	4.5	430
28...	0805	4.0	640
DEC			
05...	1600	6.5	450
06...	0830	1.5	440
09...	1105	1.5	640
13...	0830	1.0	360
16...	1010	3.5	420
23...	1100	4.5	460
JAN			
09...	1600	.0	500
19...	1025	.0	440
22...	0830	1.5	340
29...	1025	.0	370
FEB			
07...	1600	.0	400
23...	0830	1.5	250
26...	0845	1.5	310
28...	0825	6.5	150
MAR			
07...	0830	6.0	87
08...	1030	5.5	100
10...	1110	7.0	180
15...	0905	9.5	290
17...	1115	9.5	360
23...	0855	12.5	43
31...	1105	13.0	140
APR			
04...	0825	6.0	170
06...	0850	10.5	220
11...	0905	15.5	300
18...	1530	17.0	350
19...	0850	18.0	360
22...	1245	21.0	200
29...	0815	15.0	430
MAY			
01...	1335	20.0	440
04...	0845	13.0	130
12...	0950	16.5	110
15...	1930	14.5	200
21...	0900	20.5	260
27...	1355	27.5	310
30...	1700	24.0	320
JUN			
05...	0915	15.0	420
10...	1505	22.5	160
14...	1315	28.5	220
19...	1000	25.0	340
19...	1630	25.0	330
22...	0845	24.5	400
25...	0720	24.0	68
JUL			
07...	1245	25.5	170
10...	1430	--	110
11...	1500	30.5	140
15...	1910	31.0	370
16...	1350	32.5	370
24...	0915	26.0	210
31...	1040	27.0	43
AUG			
01...	0740	26.0	42
07...	1430	29.0	140
08...	1040	28.0	145
15...	0900	21.0	240
16...	1010	22.5	260
23...	0835	24.0	330
28...	1015	24.0	440
SEP			
02...	1225	28.5	440
04...	2220	27.5	190
11...	1320	26.0	290
16...	1905	27.5	430
18...	1400	25.0	410
24...	1630	20.0	470
30...	1715	29.0	480

07146500 ARKANSAS RIVER AT ARKANSAS CITY, KS--Continued
(National stream-quality accounting network, pesticide and radiochemical station)

SPECIFIC CONDUCTANCE (MICROMMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1500	2140	1870	---	---	880	936	1980	1620	1550	434	1910
2	1560	2180	1950	---	---	1030	1050	1970	1670	1590	445	1970
3	1650	2230	2080	---	---	767	1140	1970	1680	1650	586	1600
4	1720	2150	2080	---	---	581	1180	823	1840	1470	705	1010
5	1800	2150	2060	---	---	799	1230	896	1930	1600	730	1220
6	1920	1970	2020	---	---	534	1220	997	1870	1600	857	1400
7	1980	2060	2040	---	---	531	1310	1140	1780	1010	813	1380
8	2040	1930	2290	---	---	551	1380	1490	1340	574	868	1120
9	2040	2200	2730	---	---	747	1430	910	588	572	1000	1330
10	2070	2240	2570	---	---	974	1450	919	446	620	1070	1330
11	2030	2090	2270	---	---	1160	1490	1050	538	864	1150	1420
12	2000	2390	2110	---	---	1240	1240	610	713	1080	1250	1590
13	2060	2320	1750	---	---	1240	1250	749	903	1340	1240	1730
14	2120	2050	2030	---	---	1250	1450	808	1140	537	1310	1920
15	2110	1920	2050	---	---	1400	1370	1090	1370	1710	1300	1900
16	2120	2000	1990	---	---	1590	1640	1160	1410	1730	1380	1940
17	2200	1760	1990	---	---	1710	1680	1250	1490	1750	1500	1980
18	2160	1630	2020	---	---	1670	1680	1290	1520	745	1440	2070
19	2100	1800	2020	2010	---	1160	1730	1360	1540	903	1510	1980
20	2120	1920	1990	2010	---	493	1650	1520	1500	613	1600	1960
21	2170	1980	2050	1650	---	393	1730	1360	1640	697	1600	1940
22	2180	2080	2070	1570	1380	369	1450	981	1870	772	1540	1990
23	2100	2030	2100	1690	1260	351	1720	647	609	846	1640	1970
24	2130	1970	2100	1760	1340	361	1800	863	541	1070	1830	2100
25	2150	1990	2200	1690	1430	396	1830	1070	485	1220	1740	2100
26	2100	1860	2150	1570	1490	400	1900	1310	522	1350	1890	2100
27	2140	1620	2160	1680	865	469	1950	1540	731	819	1920	1960
28	2200	2660	2110	1730	790	515	1930	1500	1010	992	1980	2050
29	2210	1730	2120	1790	---	629	2010	1520	1360	705	1920	2100
30	2150	1890	2370	1760	---	733	2000	1560	1460	694	1880	2160
31	2160	---	---	---	---	814	---	1610	---	386	1860	---

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.5	11.0	7.5	1.0	.5	4.5	13.5	20.0	22.5	30.5	26.0	31.5
2	19.0	13.0	9.0	.5	.5	6.0	10.5	21.5	23.0	30.5	26.0	28.5
3	19.5	15.0	2.5	.5	.5	6.5	9.5	16.5	26.0	29.0	26.0	30.5
4	15.0	22.5	2.0	.0	.0	5.5	6.0	13.0	24.0	30.5	27.5	27.5
5	15.0	20.5	2.5	.0	.0	4.0	8.0	16.0	15.0	29.0	30.5	26.0
6	13.5	11.5	1.5	.0	.0	5.0	10.5	18.0	24.0	25.5	29.5	25.0
7	14.5	7.5	1.0	.0	.0	6.0	16.5	18.5	24.0	24.5	28.0	25.5
8	18.5	8.0	1.0	.0	.0	6.0	17.5	21.0	26.0	29.0	28.0	28.0
9	16.5	9.0	1.5	.0	.0	7.5	14.5	21.0	22.0	29.5	31.0	27.0
10	17.5	10.0	2.5	.0	.0	7.0	15.5	21.5	22.5	30.0	27.0	23.0
11	19.0	9.0	1.0	.0	.0	13.5	15.0	14.5	24.0	31.5	23.0	26.0
12	19.0	10.0	1.5	.0	.0	9.5	12.0	16.5	25.0	32.0	27.0	23.5
13	14.0	11.0	1.0	.0	.0	11.5	15.0	17.0	23.5	32.0	23.5	24.5
14	11.5	8.0	1.0	.0	.5	9.0	17.0	19.5	28.5	27.0	25.0	24.0
15	20.0	6.5	2.0	.0	.5	9.5	21.0	14.5	27.0	31.0	21.0	26.0
16	14.5	6.0	3.5	.0	.5	9.0	20.5	20.5	24.5	32.5	22.5	27.5
17	12.0	5.0	3.5	.0	1.0	9.5	20.0	21.5	23.0	27.5	24.0	18.0
18	11.0	6.0	3.5	.0	1.5	15.5	19.5	20.0	23.0	26.0	26.0	20.5
19	14.0	8.0	9.0	.0	2.0	13.5	18.0	26.5	25.0	25.0	31.5	27.5
20	14.0	7.0	7.0	1.0	2.5	12.0	20.5	22.0	24.0	25.0	28.0	25.5
21	15.0	4.5	2.5	1.0	3.0	13.5	16.0	20.5	26.5	27.5	26.5	20.5
22	18.0	5.5	2.5	1.5	3.5	14.5	21.0	19.0	24.5	28.5	24.0	26.0
23	11.0	13.0	4.5	1.0	1.5	12.5	20.5	20.0	27.5	25.5	24.0	27.0
24	9.5	12.5	4.0	.5	1.5	10.0	20.5	19.0	26.0	26.0	24.5	20.0
25	13.5	10.0	6.0	1.0	5.0	14.0	20.0	19.0	24.0	27.0	22.0	22.5
26	9.0	10.5	3.5	1.5	1.5	8.0	16.5	21.5	25.0	28.5	23.0	22.5
27	10.5	5.5	2.0	1.0	2.0	9.5	16.0	27.5	26.5	28.0	23.0	20.0
28	18.0	4.0	3.5	1.5	6.5	11.0	16.0	27.0	26.5	32.0	24.0	21.0
29	19.5	5.0	4.0	1.0	---	15.0	15.0	23.5	31.0	31.0	24.0	29.5
30	12.0	6.0	3.0	1.5	---	15.0	16.5	23.0	27.0	28.0	25.0	29.0
31	13.0	---	2.0	1.0	---	13.0	---	21.5	---	27.0	25.0	---

07146500 ARKANSAS RIVER AT ARKANSAS CITY, KS--Continued
(National stream-quality accounting network, pesticide and radiochemical station)

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
OCT					
04...	1400	501	1620	107	145
DEC					
05...	1600	380	1970	33	34
JAN					
09...	1600	330	2115	96	86
FEB					
07...	1600	275	1870	8	5.9
MAR					
08...	1030	4291	550	1910	22100
APR					
18...	1530	1950	1710	129	679
MAY					
30...	1700	1360	1440	182	668
JUN					
19...	1630	1090	1540	123	362
JUL					
11...	1500	26	740	468	33
SEP					
18...	1400	384	1950	52	54

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	SEDI-MENT, SUS-PENDED (MG/L)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM
MAR										
08...	1030	1910	59	62	65	68	70	76	86	100
JUL										
11...	1500	468	76	82	87	91	92	93	99	100

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	SEDI-MENT, SUS-PENDED (MG/L)	BED MAT. FALL DIAM. % FINER THAN .125 MM	BED MAT. FALL DIAM. % FINER THAN .250 MM	BED MAT. FALL DIAM. % FINER THAN .500 MM	BED MAT. FALL DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM
OCT										
04...	1400	107	0	6	39	67	78	91	96	100

07146570 COLE CREEK NEAR DEGRAFF, KS

LOCATION.--Lat 37°56'50", long 96°46'50", in NE¼NW¼SW¼ sec.21, T.24 S., R.6 E., Butler County, Hydrologic Unit 11030017, at downstream side of highway bridge, 5.0 mi (8.0 km) southeast of DeGraff, and 6.0 mi (9.7 km) upstream from mouth.

DRAINAGE AREA.--30 mi^2 (80 km^2), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1961 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,332.83 ft (406.247 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Records fair except those for winter periods and period of no gage-height record June 8-18 , which are poor.

AVERAGE DISCHARGE.--18 years, 16.5 ft^3/s (0.467 m^3/s), 11,950 acre-ft/yr (14.7 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,500 ft^3/s (637 m^3/s) June 8, 1979, gage height, 15.40 ft (4.694 m); no flow at times in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since at least 1947, 17.0 ft (5.18 m) May 1955, from information by local resident.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 22,500 ft^3/s (637 m^3/s), June 8, 1979, gage height, 15.40 ft (4.694 m), no other peak above base of 1,000 ft^3/s (28.3 m^3/s); no flow most days October to January, August and September.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.20	5.7	3.7	3.5	1.5	3.0	1.5	.00
2	.00	.00	.00	.00	.20	9.8	4.5	4.5	1.5	2.8	1.2	.00
3	.00	.00	.00	.00	.20	100	4.2	5.6	1.5	2.4	1.6	.00
4	.00	.00	.00	.00	.20	12	17	6.0	1.5	2.0	1.3	.00
5	.00	.00	.00	.00	.20	6.3	37	4.9	230	5.1	.79	.00
6	.00	.00	.00	.00	.25	4.7	9.5	4.2	36	7.6	.67	.00
7	.00	.00	.00	.00	.20	4.0	5.9	3.9	15	5.6	.62	.00
8	.00	.00	.00	.00	.20	3.6	4.7	3.6	6000	4.1	.53	.00
9	.00	.00	.00	.00	.20	3.7	4.3	3.4	700	3.1	.36	.00
10	.00	.00	.00	.00	.30	7.6	3.8	3.7	250	2.7	.26	.00
11	.00	.00	.00	.00	.50	5.7	23	3.7	150	2.6	.21	.00
12	.00	.00	.00	.00	.70	4.1	12	3.7	100	2.1	.04	.00
13	.00	.00	.00	.00	.90	3.7	6.3	3.5	70	1.6	.00	.00
14	.00	.00	.00	.00	1.2	3.4	4.7	3.4	40	1.0	.00	.00
15	.00	.00	.00	.00	1.5	3.3	4.4	3.3	30	.96	.00	.00
16	.00	.00	.00	.00	1.8	2.9	4.4	3.0	20	1.0	.00	.00
17	.00	.00	.00	.00	1.5	2.8	4.5	2.7	16	1.5	.00	.00
18	.00	.00	.00	.00	1.5	449	4.5	2.8	14	2.8	.00	.00
19	.00	.00	.00	.05	2.0	70	4.5	3.0	13	2.4	.00	.00
20	.00	.00	.00	.00	5.0	13	4.7	133	12	1.6	.00	.00
21	.00	.00	.00	.00	30	6.2	4.8	8.6	11	1.2	.00	.00
22	.00	.00	.00	.00	120	25	4.7	4.3	11	.83	.00	.00
23	.00	.00	.00	.00	150	140	4.5	3.4	12	.74	.00	.00
24	.00	.00	.00	.00	25	102	4.2	2.6	10	.82	.00	.00
25	.00	.00	.00	.00	9.0	12	4.1	2.4	8.1	.80	.00	.00
26	.00	.01	.00	.10	7.0	6.8	3.9	2.3	6.4	.69	.00	.00
27	.00	.00	.00	.20	4.6	5.1	3.7	2.3	4.9	.69	.00	.00
28	.00	.00	.00	.15	5.2	4.1	3.6	2.1	4.5	.61	.00	.00
29	.00	.00	.00	.10	---	3.7	3.5	2.0	3.8	4.1	.00	.00
30	.00	.00	.00	.10	---	3.5	3.5	1.8	3.2	1.7	.00	.00
31	.00	---	.00	.10	---	3.4	---	1.6	---	2.3	.00	---
TOTAL	.00	.01	.00	.80	369.55	1027.1	208.1	239.0	7784.9	70.44	9.08	.00
MEAN	.000	.000	.000	.026	13.2	33.1	6.94	7.71	259	2.27	.29	.000
MAX	.00	.01	.00	.20	150	449	37	133	6000	7.6	1.6	.00
MIN	.00	.00	.00	.00	.20	2.8	3.5	1.6	1.5	.61	.00	.00
AC-FT	.00	.02	.00	1.6	733	2040	413	474	15440	140	18	.00

CAL YR 1978 TOTAL 5050.77 MEAN 13.8 MAX 819 MIN .00 AC-FT 10020
WTR YR 1979 TOTAL 9708.98 MEAN 26.6 MAX 6000 MIN .00 AC-FT 19260

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

REMARKS.--Sediment samples are collected only at selected flow conditions.

07147070 WHITEWATER RIVER AT TOWANDA, KS

LOCATION.--Lat 37°47'45", long 97°00'45", in SE¼SW¼SE¼ sec.8, T.26 S., R.4 E., Butler County, Hydrologic Unit 11030017, at downstream side of bridge on State Highway 254, 0.5 mi (0.8 km) west of Towanda, 2.4 mi (3.9 km) downstream from West Branch, and at mile 17.5 (28.2 km).

DRAINAGE AREA.--426 mi² (1,100 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Annual maximum, water years 1960-61. October 1961 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,231.47 ft (375.352 m) National Geodetic Vertical Datum of 1929 (levels by State Highway Commission). Prior to Oct. 1, 1961, crest-stage gage at same site at datum 5.22 ft (1.591 m) higher.

REMARKS.--Records good except those for winter periods, which are poor.

AVERAGE DISCHARGE.--18 years, 200 ft³/s (5.664 m³/s), 144,900 acre-ft/yr (179 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 58,400 ft³/s (1,650 m³/s) June 8, 1979, gage height, 29.73 ft (9.062 m) from rating curve extended above 39,000 ft³/s (1,100 m³/s); minimum, 0.20 ft³/s (0.006 m³/s) July 14, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of April 1944 reached a stage of 28.6 ft (8.72 m) from floodmark.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,000 ft³/s (56.6 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 3	1000	2,960	83.8	14.06	4.285	June 8	1300	* 58,400	1,650	29.73	9.062
Mar. 18	2400	2,160	61.2	11.40	3.475	June 23	0600	4,060	115	17.19	5.240
Mar. 23	0300	2,930	83.0	13.98	4.261	July 5	2400	3,210	90.9	14.78	4.505
May 21	0800	6,130	174	21.29	6.489						

Minimum discharge, 3.7 ft³/s (0.104 m³/s) Oct. 9-17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.0	4.5	9.5	7.0	12	81	63	41	53	835	76	15
2	4.6	4.5	9.2	7.0	12	141	63	48	51	238	69	47
3	4.8	4.5	9.0	7.0	11	2420	57	422	49	152	47	41
4	4.7	4.5	8.8	7.0	11	551	85	321	46	116	39	24
5	4.6	4.5	8.8	7.0	12	125	225	128	50	1920	38	19
6	4.2	4.8	8.5	7.0	12	79	136	90	58	1950	31	37
7	4.0	4.4	8.6	7.0	11	65	82	72	59	728	28	65
8	4.0	5.8	8.3	8.0	11	57	65	64	23300	270	25	55
9	3.8	6.5	8.3	8.0	10	59	54	58	12600	198	23	30
10	3.7	6.4	8.2	8.0	10	95	50	58	4290	153	22	23
11	3.7	6.9	8.8	8.0	9.4	90	316	63	766	123	23	19
12	3.9	7.2	9.1	8.0	9.4	68	174	72	392	104	23	17
13	3.8	7.6	9.5	8.0	9.5	48	90	58	283	91	23	16
14	3.7	8.1	9.1	8.0	9.0	39	69	51	235	83	22	15
15	3.8	8.2	9.2	8.0	9.0	33	62	44	206	75	24	14
16	3.7	9.4	9.4	9.0	9.0	30	59	41	161	68	32	14
17	3.9	11	9.3	9.0	9.0	29	56	39	134	106	40	14
18	3.8	10	8.8	9.0	9.5	955	54	38	118	89	33	14
19	3.8	9.6	9.1	9.0	10	1440	55	41	109	69	27	14
20	3.8	9.1	9.4	9.0	26	265	108	2690	132	65	27	14
21	4.0	8.7	9.4	10	88	124	154	5080	151	58	22	14
22	4.0	8.5	9.5	10	197	1080	76	650	1330	52	19	13
23	4.0	8.5	9.7	10	444	2300	62	254	3910	49	17	13
24	4.0	8.5	9.5	10	213	1590	55	172	2170	52	16	12
25	4.0	9.1	9.4	10	102	430	52	135	410	55	15	12
26	4.5	9.8	9.1	10	54	202	47	107	231	52	15	12
27	4.5	11	9.1	10	35	138	44	92	182	48	17	12
28	4.5	11	9.1	10	41	107	41	81	157	44	18	12
29	4.5	10	9.3	11	---	89	41	70	139	177	18	12
30	4.5	9.8	9.0	11	---	74	40	63	785	497	17	12
31	4.5	---	8.0	11	---	62	---	57	---	92	15	---
TOTAL	128.3	232.4	280.0	271.0	1391.0	12866	2535	11200	52557	8609	861	631
MEAN	4.14	7.75	9.03	8.74	49.7	415	84.5	361	1752	278	27.8	21.0
MAX	5.0	11	9.7	11	444	2420	316	5080	23300	1950	76	65
MIN	3.7	4.4	8.0	7.0	9.0	29	40	38	46	44	15	12
AC-FT	254	461	555	538	2760	25520	5030	22220	104200	17080	1710	1250

CAL YR 1978 TOTAL 42594.5 MEAN 117 MAX 8030 MIN 3.7 AC-FT 84490
WTR YR 1979 TOTAL 91562.5 MEAN 251 MAX 23300 MIN 3.7 AC-FT 181600

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1962 to current year.

REMARKS.--Sediment samples are collected only at selected flow conditions.

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)
MAR					
08...	1050	58	800	84	13

07147800 WALNUT RIVER AT WINFIELD, KS

LOCATION.--Lat 37°13'27", long 96°59'40", in SW¼SW¼NE¼ sec.33, T.32 S., R.4 E., Cowley County, Hydrologic Unit 11030018, at downstream side of bridge on U.S. Highway 77, 1.0 mi (1.6 km) south of Winfield, 1.0 mi (1.6 km) upstream from Black Crook Creek, and at mile 24.8 (39.9 km).

DRAINAGE AREA.--1,872 mi^2 (4,848 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1921 to current year. October to November 1921 monthly discharge only, published in WSP 1311.

REVISED RECORDS.--WSP 607: 1923(M). WSP 1117: Drainage area. WSP 1241: 1922(M), 1923, 1926-27, 1928-29(M), 1934, 1940-41.

GAGE.--Water-stage recorder. Datum of gage is 1,082.86 ft (330.056 m) National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark). Prior to Oct. 1, 1934, nonrecording gage on upstream side of former bridge just upstream from present gage at same datum.

REMARKS.--Records good. Some regulation at low flow by City Water Works Dam and Timber Creek Reservoir above station.

AVERAGE DISCHARGE.--58 years, 801 ft^3/s (22.68 m^3/s), 580,300 acre-ft/yr (716 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 105,000 ft^3/s (2,970 m^3/s) Apr. 23, 1944, gage height, 38.30 ft (11.674 m); no flow at times in 1929, 1936, 1954-56.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum floods known since at least 1877, that of Apr. 23, 1944; Nov. 18, 1928, discharge, 94,400 ft^3/s (2,670 m^3/s), gage height, 41.0 ft (12.50 m), from graph based on gage readings at former site.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 56,500 ft^3/s (1,600 m^3/s) June 10, gage height, 35.24 ft (10.741 m), no other peak above base of 9,600 ft^3/s (272 m^3/s); minimum, 15 ft^3/s (0.42 m^3/s) Nov. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	17	50	38	62	300	493	247	334	1230	402	86
2	32	16	47	40	60	431	539	257	318	1640	263	85
3	30	16	41	48	58	3430	577	1860	305	749	247	79
4	27	16	37	43	56	6200	577	2040	295	485	225	96
5	25	16	35	40	52	2670	819	1570	286	1860	187	113
6	24	29	32	38	54	1150	1670	876	1340	5970	164	118
7	24	24	31	40	52	809	1280	612	1220	3660	148	120
8	23	24	31	38	52	605	814	484	1170	2100	135	129
9	23	24	30	38	51	493	627	410	12300	1220	124	130
10	24	33	31	37	51	430	534	365	48500	891	113	126
11	24	36	31	37	51	420	577	353	31900	700	108	101
12	24	33	31	38	56	461	1200	341	17200	570	104	83
13	23	34	31	41	68	425	1220	318	4120	480	102	71
14	21	31	32	40	78	363	764	307	2790	411	102	62
15	20	35	33	40	124	321	568	278	2160	357	110	55
16	19	37	34	40	212	295	479	257	1600	324	109	52
17	17	39	34	38	268	281	431	247	1100	307	105	53
18	16	44	34	61	250	732	401	240	830	296	105	49
19	16	45	35	73	204	5620	381	237	678	321	110	46
20	17	48	36	89	183	4670	381	393	673	284	110	48
21	17	47	34	137	247	1510	1130	6330	534	255	107	47
22	18	43	35	169	493	1760	808	7130	592	238	107	47
23	19	40	36	153	972	5090	470	2570	4300	225	96	45
24	18	38	34	141	1740	5690	381	1200	7710	214	91	45
25	17	43	34	141	1450	4800	341	796	4350	205	88	46
26	18	51	33	135	662	2080	318	614	1900	198	89	47
27	18	75	34	115	444	1220	300	516	1250	191	89	45
28	18	90	37	89	337	871	278	458	935	187	85	41
29	17	70	38	77	---	699	264	414	742	188	79	41
30	17	57	37	77	---	597	254	385	636	172	84	39
31	17	---	40	68	---	516	---	364	---	934	90	---
TOTAL	658	1151	1088	2215	8387	54947	18876	32469	152068	26862	4078	2153
MEAN	21.2	38.4	35.1	71.5	300	1772	629	1047	5069	867	132	71.8
MAX	35	90	56	169	1740	6200	1670	7130	48500	5970	402	130
MIN	16	16	30	37	51	281	254	237	286	172	79	39
AC-FT	1310	2280	2160	4390	16640	109000	37440	64400	301600	53280	8090	4270

CAL YR 1978 TOTAL 194540 MEAN 533 MAX 10200 MIN 16 AC-FT 385900
WTR YR 1979 TOTAL 304952 MEAN 835 MAX 48500 MIN 16 AC-FT 604900

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1960 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1961 to September 1969.
WATER TEMPERATURES: October 1961 to September 1975.
SUSPENDED-SEDIMENT RECORDS: September 1961 to September 1975.

REMARKS.--Sediment samples are collected only at selected flow conditions.

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)
MAR					
07...	1515	787	355	435	924
SEP					
12...	1650	81	1140	56	12

07149000 MEDICINE LODGE RIVER NEAR KIOWA, KS

LOCATION.--Lat 37°02'17", long 98°28'04", in SE¼SW¼ sec.36, T.34 S., R.11 W., Barber County, Hydrologic Unit 11060003, at downstream side of bridge on State Highway 14, 200 ft (61 m) downstream from the Atchison, Topeka and Santa Fe Railway Co. bridge, 1.5 mi (2.4 km) northwest of Kiowa, and at mile 22.2 (35.7 km).

DRAINAGE AREA.--903 mi^2 (2,340 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1895 to October 1896, October 1937 to September 1950, October 1954 to September 1955, June 1959 to current year. Published as Medicine River near Kiowa 1895-96. All figures of discharge above 2,000 ft^3/s (57 m^3/s) for June and July 1896, published in Eighteenth Annual Report of the Geological Survey (Part 4), have been found to be unreliable and should not be used.

REVISED RECORDS.--WSP 1117: Drainage area. WSP 1391: 1938(M), 1942(M). WSP 1921: Drainage area. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Datum of gage is 1,286.99 ft (382.275 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). May 1895 to October 1896, nonrecording gage at site 2.0 mi (3.2 km) upstream at different datum. Feb. 11 to Mar. 2, 1938, nonrecording gage and Mar. 3, 1938, to Sept. 30, 1944, water-stage recorder at present site at datum 3.00 ft (0.914 m) higher. Oct. 1, 1944, to Sept. 30, 1950, and Oct. 1, 1954, to Sept. 30, 1955, water-stage recorder at present site and datum.

REMARKS.--Records fair, except those for winter months and those for period of no gage-height record May 10-13, which are poor.

AVERAGE DISCHARGE.--34 years (water years 1938-50, 1955, 1960-79), 136 ft^3/s (3.852 m^3/s), 98,530 acre-ft/yr (121 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,000 ft^3/s (453 m^3/s) Oct. 22, 1941, gage height, 11.75 ft (3.581 m), present datum; maximum gage height, 12.10 ft (3.688 m) Oct. 12, 1973; no flow at times in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods of May 8, 1922, and June 1957 reached stages of about 16 ft (4.9 m) and 15.5 ft (4.7 m), respectively, present site and datum, from the Atchison, Topeka and Santa Fe Railway Co. records and information by local resident.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,000 ft^3/s (142 m^3/s) May 11, gage height, unknown, no other peak above base of 3,700 ft^3/s (104 m^3/s); minimum daily discharge, 0.20 ft^3/s (0.006 m^3/s) Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	42	74	30	60	122	122	100	108	29	110	17
2	17	40	74	35	60	126	122	122	110	26	84	39
3	17	40	50	40	60	168	122	141	102	24	70	24
4	17	40	60	35	60	150	124	200	100	22	60	14
5	16	42	68	35	55	132	124	154	98	45	54	11
6	16	48	64	35	60	122	122	128	201	96	46	9.5
7	16	48	46	30	60	118	124	116	312	116	38	8.5
8	15	48	36	25	60	112	114	102	168	137	34	7.5
9	15	50	45	30	55	108	106	90	188	98	28	6.0
10	17	50	54	35	60	108	108	1300	248	78	25	5.3
11	17	50	66	40	65	108	124	3000	212	64	23	4.2
12	17	58	76	45	70	106	122	640	158	54	20	3.9
13	16	62	88	45	75	100	110	380	136	42	19	2.8
14	16	64	74	40	80	98	104	263	120	32	17	2.2
15	16	68	78	45	80	102	100	215	104	29	17	2.2
16	17	70	76	50	70	98	98	190	90	51	17	2.2
17	17	74	68	50	65	102	94	170	82	338	17	2.2
18	18	80	68	55	60	218	94	164	80	132	16	2.0
19	20	70	66	60	70	330	96	160	72	94	14	1.8
20	23	68	62	70	90	289	110	158	70	74	12	1.5
21	24	68	60	90	110	195	106	180	66	62	12	1.5
22	25	72	62	100	130	517	112	172	58	48	10	1.2
23	28	70	60	90	160	917	100	154	58	60	10	.75
24	32	70	60	80	150	378	96	144	60	76	9.5	.50
25	35	80	64	90	145	245	96	136	58	72	9.5	.35
26	38	86	62	90	140	195	96	134	58	303	9.5	.30
27	42	78	64	85	138	160	96	120	56	487	19	.30
28	46	78	64	80	134	150	102	114	52	178	20	.30
29	50	76	64	75	---	144	104	116	46	138	18	.30
30	48	72	40	70	---	134	100	112	38	102	15	.20
31	44	---	25	60	---	124	---	104	---	104	16	---
TOTAL	753	1862	1918	1740	2422	5976	3248	9279	3309	3207	869.5	172.50
MEAN	24.3	62.1	61.9	56.1	86.5	193	108	299	110	103	28.0	5.75
MAX	50	86	88	100	160	917	124	3000	312	487	110	39
MIN	15	40	25	25	55	98	94	90	38	22	9.5	.20
AC-FT	1490	3690	3800	3450	4800	11850	6440	18400	6560	6360	1720	342

CAL YR 1978 TOTAL 40169.53 MEAN 110 MAX 3300 MIN .00 AC-FT 79680
WTR YR 1979 TOTAL 34756.00 MEAN 95.2 MAX 3000 MIN .20 AC-FT 68940

07149000 MEDICINE LODGE RIVER NEAR KIOWA, KS--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1955, 1974 to current year (discontinued).

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1973 to current year.
WATER TEMPERATURES: October 1954 to September 1955, October 1973 to current year.

INSTRUMENTATION.--Continuous monitor for specific conductance and water temperatures since October 1973.

REMARKS.--In addition to water-quality monitor, samples were collected by a local observer. Observer samples were used to interpret periods of monitor malfunctions. Sediment samples are collectud only at selected flow conditions.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 1,570 micromhos July 21, 1974; minimum, 285 micromhos June 25, 1978.
WATER TEMPERATURES: Maximum, 35.0°C July 16, 29, 1955; minimum, 0.0°C on several days during winter periods.

EXTREMES OUTSIDE PERIOD OF DAILY RECORD.--A specific conductance of 182 micromhos was observed July 5, 1955.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,520 micromhos Sept. 28; minimum daily, 389 micromhos July 27.
WATER TEMPERATURES: Maximum daily, 29.5°C June 29; minimum daily, 0.0°C Jan. 7.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
OCT 05...	11	1150	8.3	15.0	8.0	10.8	450	270	130	31	96
NOV 02...	28	940	8.6	17.0	15	10.0	370	170	110	24	66
DEC 06...	66	900	8.[illegible]	1.0	27	14.2	330	110	100	20	57
JAN 10...	29	1040	8.1	.0	4.0	9.1	370	220	110	22	63
FEB 21...	112	690	8.0	.0	10	13.1	280	130	87	16	40
MAR 08...	118	860	8.3	13.0	33	--	360	140	110	20	53
APR 19...	101	900	8.5	20.5	33	9.2	360	180	110	21	61
MAY 31...	104	1180	8.6	22.0	40	8.6	520	330	160	29	77
JUN 21...	66	1200	8.3	27.5	24	8.3	470	320	140	30	82
JUL 12...	51	1100	8.4	25.5	4.7	7.4	350	170	100	25	81
AUG 09...	34	1120	8.4	33.5	12	7.1	430	260	130	26	84
SEP 19...	16	1420	8.3	27.0	1.5	8.4	450	290	120	36	120

DATE	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)
OCT 05...	2.0	4.6	180	280	130	.4	13	798	1.09	23.7
NOV 02...	1.5	4.5	200	210	88	.3	14	623	.85	47.1
DEC 06...	1.4	3.8	220	160	66	.3	15	556	.76	99.1
JAN 10...	1.4	4.4	150	170	79	.3	18	631	.86	49.4
FEB 21...	1.0	2.6	150	130	51	.3	15	450	.61	136
MAR 08...	1.2	3.6	220	150	68	.4	15	559	.76	178
APR 19...	1.4	4.0	180	200	73	.4	14	627	.85	171
MAY 31...	1.5	4.8	190	320	110	.4	13	827	1.12	232
JUN 21...	1.6	5.6	150	330	120	.4	15	835	1.14	149
JUL 12...	1.9	6.6	180	220	90	.4	18	714	.97	98.7
AUG 09...	1.8	7.4	170	310	110	.4	20	771	1.05	71.2
SEP 19...	2.5	5.8	160	410	150	.5	14	962	1.31	41.6

07149000 MEDICINE LODGE RIVER NEAR KIOWA, KS--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
NOV					
02...	.01	.02	.40	.41	.09
FEB					
21...	1.2	.05	.34	1.5	.09
MAY					
31...	.38	.04	.66	1.0	.13
AUG					
09...	.02	.03	.48	.50	.08

DATE	TIME	TEMPER-ATURE (DEG C)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
OCT			
03...	1045	17.0	120
05...	1100	15.0	130
09...	1130	17.5	120
13...	1115	19.5	110
18...	1115	14.5	110
NOV			
02...	1030	17.0	88
02...	1115	18.0	84
15...	1030	5.5	64
17...	1115	7.5	67
22...	1045	4.5	68
29...	1100	7.5	61
DEC			
04...	1130	3.0	82
06...	1430	1.0	66
09...	1030	1.5	92
15...	1000	.5	58
18...	1100	3.5	63
28...	1530	10.0	66
JAN			
10...	1200	.0	79
25...	1230	1.0	72

DATE	TIME	TEMPER-ATURE (DEG C)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
FEB			
10...	1400	2.0	68
15...	1200	1.0	66
19...	1230	3.5	75
21...	1530	.0	51
23...	1015	1.5	46
27...	1100	3.0	58
MAR			
03...	1100	4.5	62
08...	1100	9.5	70
08...	1530	13.0	68
13...	1245	14.5	67
20...	1245	13.0	51
24...	1130	9.5	43
31...	1015	10.0	73
APR			
03...	1200	5.5	66
07...	1635	24.5	150
12...	1300	18.5	72
19...	1230	20.0	74
19...	1500	20.5	73
21...	0930	17.0	68
28...	1030	18.5	74

DATE	TIME	TEMPER-ATURE (DEG C)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
MAY			
01...	1100	19.5	78
10...	1100	14.0	23
12...	1045	16.0	36
18...	1045	20.0	94
22...	1030	19.0	64
30...	1000	22.0	90
31...	1330	22.0	110
JUN			
02...	1000	19.5	120
08...	1725	21.5	32
15...	0800	22.0	74
19...	1045	23.5	98
21...	1230	27.5	120
26...	0930	23.0	100
JUL			
05...	1130	30.0	130
07...	1030	23.0	32
12...	1500	25.5	90
13...	1100	29.0	90
17...	1000	24.5	20

DATE	TIME	TEMPER-ATURE (DEG C)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
JUL			
28...	1130	29.5	22
30...	1015	27.5	50
AUG			
01...	1200	27.5	43
06...	1015	27.5	96
09...	1000	33.5	110
16...	1130	23.5	130
20...	1015	24.0	130
27...	1200	24.0	160
28...	1215	29.0	100
SEP			
03...	1015	27.0	95
04...	1230	30.0	120
13...	1030	19.5	140
19...	1600	27.0	150
20...	1215	23.0	140
27...	1130	21.5	130
28...	1245	24.5	130

07149000 MEDICINE LODGE RIVER NEAR KIOWA, KS--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1170	968	866	900	812	869	905	939	1110	1280	583	978
2	1190	978	862	910	812	882	902	815	1130	1230	736	812
3	1200	984	910	920	825	772	889	855	1100	1260	862	997
4	1210	966	966	940	840	840	886	738	1120	1330	888	1140
5	1220	940	905	950	855	909	904	798	1110	1080	877	1180
6	1210	912	869	960	875	895	969	871	1030	951	866	1210
7	1200	933	964	970	886	935	971	910	543	1040	794	1260
8	1180	936	1010	990	870	984	948	940	689	764	772	1270
9	1160	938	1120	1020	862	877	958	955	720	752	1030	1320
10	1130	941	1030	1040	875	843	940	462	885	815	1140	1320
11	1100	941	930	1070	840	835	915	549	1120	1000	1240	1330
12	1080	900	840	1100	809	855	932	706	1050	1100	1260	1310
13	1130	868	842	1140	790	844	957	846	1070	1130	1280	1310
14	1150	881	812	1160	766	855	960	994	1040	1240	1280	1370
15	1140	854	802	1100	770	851	959	1060	1080	1250	1290	1310
16	1120	845	818	1040	810	858	964	1110	1170	1090	1220	1380
17	1090	861	830	1000	850	843	952	1160	1180	1030	1180	1370
18	1100	873	850	960	890	606	947	1160	1200	1290	1170	1330
19	1080	870	854	910	932	668	1060	1160	1220	1170	1200	1370
20	1060	873	856	860	804	753	998	1140	1200	941	1260	1400
21	1040	875	867	820	738	714	915	1090	1200	1020	1300	1420
22	1040	879	868	771	679	639	891	1130	1170	1320	1320	1400
23	1030	877	871	790	621	503	937	1130	1180	1130	1310	1410
24	1040	875	875	812	664	595	946	1130	1150	1190	1300	1420
25	1020	840	880	858	710	666	938	1150	1140	1450	1290	1450
26	1020	845	886	837	755	717	927	1140	1130	989	1260	1480
27	965	849	897	830	796	791	927	1120	1150	389	1200	1390
28	960	842	869	830	840	853	934	1100	1160	541	1000	1520
29	955	840	869	824	---	890	951	1160	1230	846	1070	1470
30	950	863	880	820	---	911	946	1250	1230	1020	1060	1450
31	960	---	890	815	---	919	---	1210	---	999	1010	---
MEAN	1090	895	890	934	806	806	941	993	1080	1050	1100	1310

WTR YR 1979 MEAN 993 MAX 1520 MIN 389

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.5	14.0	7.0	1.0	.5	7.0	10.5	18.5	21.0	27.5	25.0	24.5
2	21.0	17.5	5.5	1.0	.5	8.0	8.5	18.5	22.5	27.5	26.0	25.0
3	19.0	17.0	1.0	1.0	.5	5.5	5.5	13.0	24.5	27.5	26.5	25.5
4	18.0	17.5	1.5	.5	1.0	3.5	8.5	14.5	26.0	28.5	26.0	24.5
5	15.0	16.0	1.0	.5	1.0	6.5	13.5	17.5	26.0	26.0	25.0	25.0
6	17.5	11.0	1.0	.5	1.0	9.5	13.0	20.0	24.5	24.0	23.5	24.5
7	15.5	10.0	1.0	.0	1.0	11.5	16.5	22.5	26.0	24.0	23.0	23.5
8	16.5	12.0	1.0	.5	1.0	10.5	17.0	24.0	23.0	27.0	25.0	21.0
9	17.5	13.0	1.0	.5	1.0	9.5	15.0	22.5	19.0	26.5	25.0	21.5
10	19.5	12.0	1.0	.5	.5	9.0	13.0	16.5	20.0	28.5	24.0	20.5
11	19.0	7.5	1.0	.5	.5	11.0	14.5	15.0	23.0	28.5	22.0	20.5
12	19.5	8.0	1.0	.5	.5	12.5	14.5	17.0	25.0	28.0	22.0	21.0
13	16.0	11.0	1.0	1.0	.5	12.5	15.5	18.5	26.0	28.0	23.0	18.0
14	9.5	7.0	1.0	1.0	.5	11.5	17.5	20.0	27.0	25.5	24.0	15.5
15	11.0	5.0	1.5	.5	.5	10.0	19.5	20.5	25.0	26.0	21.0	17.0
16	13.0	5.0	1.0	.5	1.0	8.0	21.0	21.5	24.0	26.5	22.5	17.0
17	12.5	7.0	3.5	.5	1.0	9.0	21.0	21.0	25.0	24.0	24.0	17.0
18	14.5	7.5	9.0	.5	.5	14.0	18.5	21.5	26.0	24.5	24.0	18.0
19	13.5	6.0	6.5	.5	.5	13.0	19.0	23.5	24.0	25.0	24.5	18.0
20	13.5	3.5	3.5	.5	.5	12.0	20.0	22.0	25.0	25.5	23.5	22.0
21	15.5	2.0	3.0	.5	.5	12.5	19.5	19.0	27.5	25.5	24.0	19.5
22	13.0	4.5	3.0	.5	.5	14.0	19.5	21.0	26.0	25.5	23.0	20.0
23	10.0	8.5	1.5	.5	.5	11.0	21.0	21.5	25.0	24.0	22.0	23.5
24	17.0	8.5	2.5	.5	.5	10.0	21.5	20.5	24.5	26.5	21.5	24.0
25	13.0	9.0	2.5	.5	.5	11.0	18.0	20.5	25.5	26.5	22.5	23.0
26	16.0	9.0	1.5	.5	.5	12.0	18.0	22.0	26.5	25.5	23.0	21.5
27	12.0	6.0	4.0	.5	3.5	9.5	16.0	25.0	27.5	26.5	22.0	24.0
28	14.5	5.5	2.5	.5	7.0	13.0	13.0	25.0	28.0	28.0	24.0	23.0
29	17.0	7.0	1.0	.5	---	17.5	15.5	25.0	29.5	27.5	25.0	22.0
30	20.0	7.0	1.0	.5	---	14.5	18.0	23.0	27.0	24.5	25.0	21.0
31	16.0	---	1.0	.5	---	11.5	---	22.0	---	24.0	23.0	---

07149000 MEDICINE LODGE RIVER NEAR KIOWA, KS--Continued

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
DEC					
06...	1430	66	900	116	21
JAN					
10...	1200	29	1040	30	2.3
FEB					
21...	1530	112	690	40	12
MAR					
08...	1530	118	860	143	46
APR					
19...	1500	101	900	167	46
MAY					
31...	1330	104	1180	146	41
JUN					
21...	1230	66	1200	75	13
JUL					
12...	1500	51	1100	159	22
AUG					
09...	1000	34	1120	30	2.8
SEP					
19...	1000	--	--	12	--

07151500 CHIKASKIA RIVER NEAR CORBIN, KS

LOCATION.--Lat 37°07'44", long 97°36'04", on NW¼SW¼SW¼ sec.36, T.33 S., R.3 W., Sumner County, Hydrologic Unit 11060005, near left bank on downstream side of pier of bridge on State Highway 29, 1 mi (2 km) upstream from Prairie Creek, 3 mi (5 km) west of Corbin, and at mile 67.5 (109 km).

DRAINAGE AREA.--794 mi^2 (2,060 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1950 to September 1965, October 1975 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,108.00 ft (337.718 m) National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark). Prior to Mar. 23, 1951, wire-weight gage at same site and datum.

REMARKS.--Records good except those for winter months, which are poor.

AVERAGE DISCHARGE.--19 years (water years 1951-65, 1976-79), 210 ft^3/s (5.947 m^3/s), 152,100 acre-ft/yr (188 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 38,100 ft^3/s (1,079 m^3/s) May 17, 1957, gage height, 22.31 ft (6.800 m); no flow at times in 1953-54, 1956, 1963, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,500 ft^3/s (70.8 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Mar. 19	0200	* 9,760	276	13.46	4.103	May 11	0400	4,390	124	9.67	2.947
Mar. 22	2100	7,830	222	12.47	3.801	June 23	0700	3,540	100	8.68	2.646

Minimum discharge, 4.0 ft^3/s (0.11 m^3/s) Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	30	68	30	40	142	340	132	118	52	34	7.5
2	54	30	65	30	40	196	324	142	118	47	31	11
3	45	30	62	30	40	1520	302	620	112	39	27	8.3
4	43	31	62	30	40	548	354	528	107	33	23	7.4
5	43	33	65	30	40	250	409	305	98	33	20	6.3
6	47	39	62	30	40	215	318	241	90	37	17	7.5
7	39	41	58	30	40	193	271	198	90	41	15	6.7
8	41	35	52	30	40	179	252	171	87	41	13	5.2
9	31	35	50	30	40	169	244	147	112	41	11	5.0
10	33	35	50	30	40	158	289	897	201	37	11	5.0
11	33	40	60	35	50	155	1200	2630	209	32	11	4.5
12	30	40	80	35	70	147	385	1070	147	29	9.8	4.5
13	26	45	80	35	100	140	255	782	112	27	9.8	4.5
14	25	45	80	35	90	132	218	497	90	23	10	4.3
15	25	47	74	35	70	120	201	347	71	21	11	4.3
16	25	54	71	35	90	118	201	277	57	19	11	4.5
17	25	62	57	35	100	115	204	235	50	73	11	4.5
18	25	45	52	40	120	3210	201	221	45	140	11	4.5
19	25	42	52	50	200	4160	204	207	41	87	9.9	4.5
20	25	40	58	70	314	941	321	423	41	58	9.1	4.5
21	26	39	52	100	385	637	215	318	33	43	8.3	4.5
22	28	38	50	130	475	4200	190	255	77	37	7.5	4.3
23	30	37	47	160	567	2770	171	204	1580	36	7.5	4.3
24	30	36	47	125	395	1460	161	179	354	47	8.3	4.3
25	30	45	47	95	267	829	155	166	171	43	7.1	4.3
26	30	140	47	70	201	587	150	158	109	43	6.8	4.3
27	30	100	50	60	161	466	142	155	90	46	6.8	4.2
28	30	83	43	50	142	402	137	150	78	49	6.8	4.2
29	30	74	52	45	---	367	135	140	66	37	7.2	4.2
30	30	71	31	40	---	344	135	132	57	29	7.5	4.0
31	30	---	30	40	---	311	---	123	---	31	7.5	---
TOTAL	1014	1462	1754	1620	4197	25201	8084	12050	4611	1351	386.9	157.1
MEAN	32.7	48.7	56.6	52.3	150	813	269	389	154	43.6	12.5	5.24
MAX	54	140	80	160	567	4200	1200	2630	1580	140	34	11
MIN	25	30	30	30	40	115	135	123	33	19	6.8	4.0
AC-FT	2010	2900	3480	3210	8320	49990	16030	23900	9150	2680	767	312

CAL YR 1978 TOTAL 52735.4 MEAN 144 MAX 3240 MIN 6.8 AC-FT 104600
WTR YR 1979 TOTAL 61888.0 MEAN 170 MAX 4200 MIN 4.0 AC-FT 122800

07155590 CIMARRON RIVER NEAR ELKHART, KS

LOCATION.--Lat 37°07'30", long 101°53'50", in NW¼NW¼ sec.4, T.34 S., R.42 W., Morton County, Hydrologic Unit 11040002, Cimarron National Grasslands, on downstream side of bridge near left end on State Highway 27, 8.0 mi (12.9 km) north of Elkhart, and at mile 499.4 (803.5 km).

DRAINAGE AREA.--2,899 mi^2 (7,508 km^2), of which 483 mi^2 (1,251 km^2) do not contribute directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1971 to current year.

GAGE.--Water-stage recorder. Datum of gage is 3,381.89 ft (1,030.800 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records poor.

AVERAGE DISCHARGE.--8 years, 22.3 ft^3/s (0.632 m^3/s), 16,160 acre-ft/yr (19.9 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,500 ft^3/s (609 m^3/s) May 26, 1977, gage height, 9.17 ft (2.795 m), no flow most days.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft^3/s (28.3 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
June 25	1000	1,450	41.1	4.28	1.304
Aug. 26	1100	* 1,950	55.2	4.59	1.399

Minimum discharge, no flow most days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	4.7	3.2	6.3	3.7	.00
2	.00	.00	.00	.00	.00	.00	.00	313	2.9	5.5	3.7	.50
3	.00	.00	.00	.00	.00	.00	.00	20	2.5	3.8	3.4	.00
4	.00	.00	.00	.00	.00	.00	.00	17	1.9	.79	3.2	.00
5	.00	.00	.00	.00	.00	.00	.00	12	1.7	.16	3.2	.00
6	.00	.00	.00	.00	.00	.00	.00	8.7	1.5	.00	3.2	.00
7	.00	.00	.00	.00	.00	.00	.00	7.2	2.8	.04	1.7	.00
8	.00	.00	.00	.00	.00	.00	.00	6.5	5.0	.02	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	6.5	6.5	2.8	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	6.2	4.6	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	6.0	3.4	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	6.5	2.9	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	6.0	2.6	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	5.3	2.2	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	4.5	1.9	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	4.0	1.5	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	3.5	1.0	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	3.0	.75	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	2.5	.40	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	2.0	.25	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	6.0	.25	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	3.9	.25	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	2.9	.15	64	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	2.6	27	117	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	2.3	545	66	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	2.2	160	26	416	.00
27	.00	.00	.00	.00	.00	.00	.00	2.1	27	15	35	.00
28	.00	.00	.00	.00	.00	.00	.00	2.0	11	10	5.7	.00
29	.00	.00	.00	.00	---	.00	.00	2.5	19	7.4	5.5	.00
30	.00	.00	.00	.00	---	.00	.00	3.9	9.6	6.5	2.3	.00
31	.00	---	.00	.00	---	.00	---	3.2	---	5.3	.00	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	478.7	848.75	336.61	486.60	.50
MEAN	.000	.000	.000	.000	.000	.000	.000	15.4	28.3	10.9	15.7	.017
MAX	.00	.00	.00	.00	.00	.00	.00	313	545	117	416	.50
MIN	.00	.00	.00	.00	.00	.00	.00	2.0	.15	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	950	1680	668	965	1.0

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CAL YR 1978  TOTAL  11265.56   MEAN 30.9   MAX  3850   MIN  .00   AC-FT  22350
WTR YR 1979  TOTAL   2151.16   MEAN  5.89  MAX   545   MIN  .00   AC-FT   4270
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07156010 NORTH FORK CIMARRON RIVER AT RICHFIELD, KS

LOCATION.--Lat 37°15'30", long 101°46'30", in SE¼SE¼ sec.16, T.32 S., R.41 W., Morton County, Hydrologic Unit 11040003, at downstream side of bridge on State Highway 51, at Richfield, and at mile 85.8 (138.1 km).

DRAINAGE AREA.--463 mi^2 (1,199 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1971 to current year.

REVISED RECORDS.--WDR KS-77: 1976.

GAGE.--Water-stage recorder. Datum of gage is 3,343.5 ft (1,019.10 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair except those for period of no gage-height record July 17 to Aug. 29, which are poor.

AVERAGE DISCHARGE.--8 years, 8.00 ft^3/s (0.227 m^3/s), 5,800 acre-ft/yr (7.15 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,000 ft^3/s (906 m^3/s), Apr. 27, 1976, gage height, 17.50 ft (5.334 m); no flow most days.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 150 ft^3/s (4.25 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
June 9	0200	241	6.83	8.84	2.694	Aug. 1	unknown	* 287	8.13	9.50	2.896
July 17	unkown	200	5.66	unknown		Aug. 26	unknown	219	6.20	8.50	2.591

Minimum discharge, no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.10	.00	.00	.00	.00	.00	.00	.17	.00	90	.00
2	.00	.05	.00	.00	.00	.00	.00	.00	.02	.00	1.0	.00
3	.00	.00	.00	.00	.00	.00	.00	.01	.00	.00	.03	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00
5	.00	.05	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.06	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.06	.06	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.06	.07	.00	.00	.00	.00	.00	.00	76	.00	.00	.00
9	.04	.16	.00	.00	.00	.00	.00	.00	91	.02	.00	.00
10	.02	.16	.00	.00	.00	.00	.00	.00	1.4	.00	.00	.00
11	.03	.15	.00	.00	.00	.03	.00	.00	.01	.00	.00	.00
12	.06	.11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.07	.04	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.06	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	.08	.00	.00	.00	.00	.03	.00	.00	.00	.00	.00	.00
17	.13	.00	.00	.00	.00	.00	.00	.00	.00	75	.00	.00
18	.12	.00	.08	.01	.00	.04	.00	.00	.00	.30	.00	.00
19	.14	.00	.10	.02	.00	.02	.00	.00	.00	.00	.00	.00
20	.18	.00	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.15	.00	.00	.00	.00	.02	.00	.00	.00	.00	.00	.00
22	.11	.00	.00	.00	.00	.04	.00	.00	.00	.00	.00	.00
23	.08	.00	.00	.00	.00	.01	.00	.00	.00	.00	.00	.00
24	.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	70	.00
27	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	10	.00
28	.08	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.0	.00
29	.08	.00	.00	.00	---	.00	.00	.00	.00	.00	.30	.00
30	.07	.00	.00	.00	---	.00	.00	.00	.00	.00	.01	.00
31	.08	---	.00	.00	---	.00	---	.09	---	.00	.00	---
TOTAL	1.89	1.01	.19	.03	.00	.19	.00	.10	168.60	75.34	172.34	.00
MEAN	.061	.034	.006	.001	.000	.006	.000	.003	5.62	2.43	5.56	.000
MAX	.18	.16	.10	.02	.00	.04	.00	.09	91	75	90	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	3.7	2.0	.4	.06	.00	.4	.00	.2	334	149	342	.00

CAL YR 1978 TOTAL 670.59 MEAN 1.84 MAX 282 MIN .00 AC-FT 1330
WTR YR 1979 TOTAL 419.69 MEAN 1.15 MAX 91 MIN .00 AC-FT 832

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

REMARKS.--No flow on many days during period of record. Sediment samples are collected only at selected flow conditions.

07156100 SAND ARROYO CREEK NEAR JOHNSON, KS

LOCATION.--Lat 37°30'00", long 101°45'40", in SW¼NW¼ sec.25, T.29 S., R.41 W., Stanton County, Hydrologic Unit 11040004, at bridge on State Highway 27, 4.3 mi (6.9 km) south of Johnson, and at mile 22.5 (36.2 km).

DRAINAGE AREA.--619 mi^2 (1,603 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1971 to current year. Prior to Oct. 1, 1972 published as "Sandy Arroyo Creek near Johnson".

GAGE.--Water-stage recorder. Datum of gage is 3,328.40 ft (1,014.496 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good.

AVERAGE DISCHARGE.--8 years, 0.17 ft^3/s (0.005 m^3/s), 123 acre-ft/yr (0.152 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 520 ft^3/s (14.7 m^3/s) May 29, 1975, gage height, 6.5 ft (1.98 m), from floodmark; no flow most days.

EXTREMES FOR CURRENT YEAR.--No peak above base of 50 ft^3/s (1.42 m^3/s); no flow entire year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
MEAN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
MAX	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

CAL YR 1978 TOTAL 53.33 MEAN .15 MAX 28 MIN .00 AC-FT 106
WTR YR 1979 TOTAL 0.00 MEAN .000 MAX .00 MIN .00 AC-FT .00

07156220 BEAR CREEK NEAR JOHNSON, KS

LOCATION.--Lat 37°37'35", long 101°45'40", in NW¼SW¼ sec.12, T.28 S., R.41 W., Stanton County, Hydrologic Unit 11040005, at bridge on U.S. Highway 270, 3.5 mi (5.6 km) north of Johnson, and at mile 42.0 (67.6 km).

DRAINAGE AREA.--835 mi^2 (2,163 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is 3,292.44 ft (1,003.536 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--13 years, 4.64 ft^3/s (0.131 m^3/s), 3,360 acre-ft/yr (4.14 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,990 ft^3/s (255 m^3/s) May 2, 1979, gage height, 9.90 ft (3.018 m) from floodmark; no flow most days.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,990 ft^3/s (255 m^3/s) May 2, gage height, 9.90 ft (3.018 m) from floodmark; no other peak above base of 500 ft^3/s (14.2 m^3/s); no flow most days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	1490	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	341	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	67	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	1898.00	.00	.00	.00	.00
MEAN	.000	.000	.000	.000	.000	.000	.000	61.2	.000	.000	.000	.000
MAX	.00	.00	.00	.00	.00	.00	.00	1490	.00	.00	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	3760	.00	.00	.00	.00

CAL YR 1978 TOTAL 17.91 MEAN .049 MAX 13 MIN .00 AC-FT 36
WTR YR 1979 TOTAL 1898.00 MEAN 5.20 MAX 1490 MIN .00 AC-FT 3760

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

REMARKS.--No flow on many days during period of record. Sediment samples are collected only at selected flow conditions.

07156225 BEAR CREEK 9 MILES NORTHEAST OF JOHNSON, KS

LOCATION.--Lat 37°41'05", long 101°40'18", in NW¼SW¼ sec.23, T.27 S., R.40 W., Stanton County, Hydrologic Unit 11040005, on downstream side of county road bridge, 9 mi (14 km) northeast of Johnson.

DRAINAGE AREA.--Not available at time of publication.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Oct. 1978 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 3,200 ft (975 m), National Geodetic Vertical Datum of 1929 (from topographic map).

REMARKS.--Records fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge 8,740 ft^3/s (248 m^3/s) May 2, 1979, gage height, 24.26 ft (7.394 m); no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,740 ft^3/s (248 m^3/s) May 2, 1979, gage height, 24.26 ft (7.394 m); no flow most of time.

DISCHARGE, STREAM (CUBIC FEET PER SECOND), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	1770	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	356	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	73	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	13	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	1.3	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.13	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	2213.43	.00	.00	.00	.00
MEAN	.000	.000	.000	.000	.000	.000	.000	71.4	.000	.000	.000	.000
MAX	.00	.00	.00	.00	.00	.00	.00	1770	.00	.00	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	4390	.00	.00	.00	.00

WTR YR 1979 TOTAL 2213.43 MEAN 6.06 MAX 1770 MIN .00 AC-FT 4390

07157500 CROOKED CREEK NEAR NYE, KS

LOCATION.--Lat 37°02'02", long 100°11'55", in SE¼NW¼ sec.1, T.35 S., R.27 W., Meade County, Hydrologic Unit 11040007, on right bank at downstream side of county road bridge, 6.5 mi (10.5 km) east of Nye, and at mile 14.0 (22.5 km).

DRAINAGE AREA.--1,157 mi^2 (2,997 km^2), of which 344 mi^2 (891 km^2) is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1942 to current year. Monthly discharge only for some periods, published in WSP 1311.

REVISED RECORDS.--WSP 1117: Drainage area. WSP 1211: 1950. WSP 1311: 1949(M).

GAGE.--Water-stage recorder. Datum of gage is 2,163.79 ft (659.523 m) National Geodetic Vertical Datum of 1929. Prior to Sept. 12, 1942, nonrecording gage at same site and datum.

REMARKS.--Records good except those for winter periods, which are poor. Extensive diversion for irrigation above station.

AVERAGE DISCHARGE.--37 years, 41.0 ft^3/s (1.161 m^3/s), 29,700 acre-ft/yr (36.6 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,600 ft^3/s (385 m^3/s) May 20, 1955, gage height, 8.01 ft (2.441 m); right-bank gage, from rating curve extended above 2,400 ft^3/s (68.0 m^3/s) on basis of contracted-opening measurement of peak flow at site 10 mi (16 km) upstream and a mean of slope-area measurement at gage site and discharge measurement at site 10 mi (16 km) upstream at gage height, 7.59 ft (2.313 m); maximum stage, 9.00 ft (2.743 m) Aug. 31, 1963, at left-bank gage, 8.2 ft (2.50 m), floodmark, at right-bank gage; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 829 ft^3/s (23.5 m^3/s) May 2, gage height, 5.65 ft (1.722 m); no peak above base of 1,400 ft^3/s (39.6 m^3/s); minimum, 2.4 ft^3/s (0.068 m^3/s) Sept. 18-19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.8	9.4	11	6.0	11	14	19	15	39	8.4	116	7.1
2	6.5	9.3	11	6.0	12	14	19	333	38	8.4	74	5.3
3	6.3	8.9	10	6.0	12	17	21	69	33	7.5	53	5.0
4	6.5	9.0	10	6.0	12	17	22	44	29	7.0	41	3.8
5	6.6	8.7	10	6.0	12	16	21	35	26	7.9	31	3.8
6	7.0	9.4	10	6.0	12	15	21	31	24	8.4	25	8.9
7	7.3	9.2	9.0	6.0	12	15	21	27	23	10	21	9.0
8	7.2	9.1	8.0	6.0	12	15	19	26	21	9.4	18	7.6
9	7.0	8.7	7.5	6.0	12	16	18	25	22	8.4	17	6.7
10	7.0	7.9	7.5	6.0	12	16	19	25	20	7.5	15	6.2
11	6.8	8.8	7.5	6.0	13	16	21	24	19	7.0	14	6.0
12	6.5	9.3	7.5	6.0	13	15	19	22	18	6.6	13	5.6
13	6.7	9.1	7.5	6.0	13	15	19	21	17	5.9	12	5.3
14	7.4	8.5	7.5	6.0	13	14	20	20	16	5.3	12	5.5
15	7.7	8.0	8.0	6.0	13	13	19	19	15	4.7	12	6.4
16	7.4	9.0	9.0	6.5	15	13	18	18	15	15	11	5.2
17	7.6	9.7	10	7.0	15	14	18	18	15	20	10	4.5
18	7.3	9.2	12	7.0	15	21	18	20	14	72	8.5	3.7
19	7.3	8.9	13	8.0	17	19	18	18	12	38	7.7	3.3
20	7.5	8.9	11	9.0	20	20	18	18	12	110	7.5	3.5
21	7.4	9.1	11	9.0	17	24	18	53	12	63	7.1	3.8
22	7.3	9.6	12	9.0	17	39	18	81	11	39	6.3	4.2
23	8.0	9.4	13	9.0	15	27	17	76	11	30	5.5	4.1
24	8.4	9.9	13	9.0	15	24	16	52	11	23	6.9	3.5
25	8.3	11	13	9.0	16	21	16	41	12	44	8.6	3.8
26	8.2	11	12	9.0	15	20	16	38	10	63	7.6	3.6
27	8.5	11	13	10	15	20	15	34	9.9	76	15	3.5
28	8.8	11	13	10	14	20	15	30	9.4	95	10	3.3
29	8.9	11	11	10	---	19	15	27	9.4	125	9.7	3.4
30	8.9	11	9.4	11	---	18	14	32	8.9	147	12	3.3
31	8.9	---	6.0	11	---	18	---	32	---	150	10	---
TOTAL	232.0	282.6	313.4	233.5	390	565	548	1324	532.6	1222.4	617.4	148.9
MEAN	7.48	9.42	10.1	7.53	13.9	18.2	18.3	42.7	17.8	39.4	19.9	4.96
MAX	8.9	11	13	11	20	39	22	333	39	150	116	9.0
MIN	6.3	7.9	6.0	6.0	11	13	14	15	8.9	4.7	5.5	3.3
AC-FT	460	561	622	463	774	1120	1090	2630	1060	2420	1220	295

CAL YR 1978 TOTAL 6468.02 MEAN 17.7 MAX 1120 MIN .00 AC-FT 12830
WTR YR 1979 TOTAL 6409.80 MEAN 17.6 MAX 333 MIN 3.3 AC-FT 12710

07157500 CROOKED CREEK NEAR NYE, KS--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO
NOV											
09...	9.1	4100	7.8	20.0	--	420	250	110	36	710	15
DEC											
14...	7.5	3800	8.0	.5	11.1	550	330	110	66	620	12
FEB											
02...	10	3800	7.8	.0	11.0	390	220	100	33	630	14
MAR											
09...	18	3300	8.4	11.0	11.1	380	180	100	32	550	12
APR											
12...	20	3450	8.4	15.0	10.4	410	210	110	34	580	12
MAY											
11...	24	3500	8.3	13.5	10.1	410	210	110	32	600	13
AUG											
02...	72	900	8.2	27.0	6.9	200	15	60	11	110	3.4
SEP											
05...	3.8	3300	8.3	28.0	8.2	430	230	110	38	600	13

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
NOV											
09...	6.4	--	180	1200	1.0	19	2360	3.30	59.7	.01	.01
DEC											
14...	6.6	220	180	1100	1.0	21	2240	2.99	44.5	--	--
FEB											
02...	5.1	--	190	1000	.9	22	2080	2.91	50.9	--	--
MAR											
09...	7.1	190	170	880	1.0	17	1880	2.62	93.8	--	--
APR											
12...	5.2	200	260	920	1.1	17	2050	2.69	107	--	--
MAY											
11...	5.0	200	160	930	1.1	19	1980	2.84	138	.02	.06
AUG											
02...	20	180	41	150	.6	33	534	.74	107	--	--
SEP											
05...	7.6	200	190	930	1.1	20	2020	2.79	21.0	--	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
NOV					
09...	.02	.01	.23	.25	.01
MAY					
11...	.08	.02	.31	.39	.06

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
AUG					
02...	1225	72	900	44	8.6

07157740 CIMARRON RIVER NEAR BUTTERMILK, KS

LOCATION.--Lat 37°01'36", long 99°28'45", NW¼ sec.3, T.35 S., R.20 W., Comanche County, near left abutment of county highway bridge, 0.5 mi (0.8 km) downstream from Bluff Creek, 2.0 mi (3.2 km) north of Kansas-Oklahoma State line, 11.5 mi (18.5 km) southwest of Buttermilk, and at mile 304.8 (490.4 km).

DRAINAGE AREA.--11,120 mi^2 (28,800 km^2), of which 4,737 mi^2 (12,270 km^2) is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1973 to September 1979 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 1,704.57 ft (519.553 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair except those for winter periods, which are poor.

AVERAGE DISCHARGE.--6 years, 88.8 ft^3/s (2.515 m^3/s), 64,340 acre-ft/yr (79.3 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,690 ft^3/s (189 m^3/s) Sept. 26, 1973, gage height, 8.29 ft (2.527 m); no flow at times each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,900 ft^3/s (139 m^3/s) July 25, gage height 6.00 ft (1.829 m); no other peak above base of 3,000 ft^3/s (85.0 m^3/s); no flow many days in October and July.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	.06	58	27	24	60	32	11	181	.18	144	4.0
2	.20	.06	58	27	21	60	26	658	205	.42	125	2.4
3	.00	.12	48	27	22	68	25	770	189	.24	110	2.1
4	.09	.00	52	27	26	95	42	720	141	.00	90	1.5
5	.00	.06	52	26	34	108	85	620	105	.00	72	1.0
6	.07	.28	30	26	37	88	75	520	88	.00	58	.82
7	.12	.18	15	26	40	80	70	470	88	.00	46	.60
8	.06	.18	10	26	42	72	58	870	70	.00	36	1.9
9	.06	.18	7.2	26	48	68	46	185	118	.00	23	1.9
10	.24	.36	5.8	27	62	72	34	98	193	.00	18	1.3
11	.06	2.1	6.2	27	82	78	146	58	173	.00	16	1.3
12	.05	5.6	6.6	27	95	72	150	52	132	.00	15	1.0
13	.00	13	7.0	27	120	65	85	44	105	.00	13	.60
14	.00	14	7.2	30	135	54	70	38	80	.00	12	.54
15	.05	17	25	37	120	52	50	32	56	.26	15	.48
16	.06	24	78	46	80	54	40	26	40	1.7	14	.48
17	.07	48	85	50	70	58	34	25	28	40	10	.42
18	.06	44	98	52	65	105	32	25	16	34	6.0	.42
19	.00	37	436	66	70	181	26	32	13	730	4.0	.36
20	.12	32	102	90	230	135	20	472	10	527	2.8	.36
21	.00	30	78	130	994	112	15	856	8.2	301	2.4	.36
22	.18	32	60	130	256	205	15	1090	6.8	279	1.9	.36
23	.00	46	54	125	98	210	13	650	4.8	414	1.5	.36
24	.06	50	60	120	70	141	11	303	4.0	676	2.6	.36
25	.06	65	54	110	56	108	10	169	3.6	2480	7.5	.36
26	.24	75	56	92	56	98	10	159	3.6	656	4.8	.36
27	.12	78	48	52	60	90	12	210	3.2	261	3.6	.36
28	.12	70	52	52	58	95	13	165	2.6	159	3.6	.42
29	.06	62	56	46	---	90	11	120	1.5	122	18	.42
30	.00	58	30	31	---	65	11	118	.42	105	15	.36
31	.00	---	27	26	---	44	---	197	---	125	6.8	---
TOTAL	3.85	810.14	1762.0	1639	3079	2883	1267	9763	2069.72	6911.80	897.5	27.20
MEAN	.12	27.0	56.8	52.9	110	93.0	42.2	315	69.0	223	29.0	.91
MAX	1.7	78	436	130	994	210	150	1090	205	2480	144	4.0
MIN	.00	.00	5.8	26	21	44	10	11	.42	.00	1.5	.36
AC-FT	7.6	1610	3490	3250	6110	5720	2510	19360	4110	13710	1780	54

CAL YR 1978 TOTAL 35914.89 MEAN 98.4 MAX 2950 MIN .00 AC-FT 71240
WTR YR 1979 TOTAL 31113.21 MEAN 85.2 MAX 2480 MIN .00 AC-FT 61710

07157740 CIMARRON RIVER NEAR BUTTERMILK, KS--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974 to current year (discontinued).

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1973 to current year.
WATER TEMPERATURES: October 1973 to current year.

INSTRUMENTATION.--Continuous monitor for specific conductance and water temperatures since October 1973.

REMARKS.--In addition to water-quality monitor, samples were collected by a local observer. Observer samples were used to interpret periods of monitor malfunctions.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 4,800 micromhos Feb. 8, 1975; minimum, 377 micromhos Aug. 1, 1975.
WATER TEMPERATURES: Maximum, 35.5°C May 19, 1979; minimum, 0.0°C on several days during winter periods.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 4,520 micromhos Feb. 2; minimum daily, 536 micromhos July 25.
WATER TEMPERATURES: Maximum daily, 35.5°C May 19; minimum daily, 0.0°C on several days during winter period.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
NOV 08...	.18	3200	8.2	16.5	.40	8.7	800	720	210	67	390
DEC 14...	7.2	2900	8.1	.5	16	13.4	560	370	140	52	390
JAN 25...	118	3650	8.5	.5	15	13.0	560	360	140	52	570
MAR 08...	73	3450	8.3	14.5	450	10.1	510	230	120	50	560
APR 13...	142	3100	8.3	12.0	120	11.0	530	350	120	55	510
MAY 10...	96	3150	8.3	17.0	280	9.3	500	310	120	49	490
JUN 13...	105	3350	8.4	21.0	110	7.5	510	510	110	57	610
AUG 01...	145	1700	8.4	31.0	1700	6.8	300	140	72	29	240
SEP 06...	.85	3200	8.2	34.0	.20	6.9	670	540	180	53	420

DATE	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)
NOV 08...	6.0	6.2	82	590	650	.6	18	2110	2.87	1.03
DEC 14...	7.1	6.0	190	290	650	.7	17	1780	2.42	34.6
JAN 25...	10	7.2	200	280	760	.7	19	2030	2.76	647
MAR 08...	11	9.4	280	260	890	1.2	19	2050	2.79	405
APR 13...	9.7	6.9	180	290	810	.9	17	1960	2.67	751
MAY 10...	9.5	11	190	260	780	1.0	17	2030	2.76	528
JUN 13...	12	8.3	246	300	880	1.0	18	2170	2.95	615
AUG 01...	6.0	12	160	180	360	.6	22	1040	1.41	407
SEP 06...	7.1	6.7	130	230	690	.8	25	2120	2.88	4.87

07157740 CIMARRON RIVER NEAR BUTTERMILK, KS--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
NOV					
08...	.08	.03	.47	.55	.00
MAY					
10...	.22	.04	.42	.64	.02

DATE	TIME	TEMPER- ATURE (DEG C)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
NOV			
02...	1625	17.5	680
08...	1700	16.5	650
11...	1522	4.5	800
16...	1715	4.5	780
21...	1750	.0	890
26...	1730	7.5	790
DEC			
06...	1433	.0	830
14...	1520	.5	650
20...	1700	4.5	760
JAN			
23...	1050	1.0	860
25...	1100	.5	760
FEB			
15...	1345	1.5	570
22...	1455	9.0	580
23...	1345	9.0	760
MAR			
08...	1405	13.0	890
08...	1500	14.5	890
13...	1130	13.0	880
19...	0952	12.0	770
29...	1610	16.0	890

DATE	TIME	TEMPER- ATURE (DEG C)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
APR			
04...	1830	14.5	970
11...	1930	14.0	400
12...	1945	14.0	630
13...	1030	12.0	810
21...	1135	21.5	930
26...	1315	26.0	1000
MAY			
02...	1900	15.5	250
05...	0630	21.0	610
10...	1415	17.0	780
17...	0908	18.0	910
25...	1338	20.0	720
28...	1308	25.0	820
JUN			
02...	0838	19.5	920
10...	0800	24.0	940
13...	0945	21.0	880
17...	0820	27.0	950
25...	1400	32.5	850
JUL			
02...	0855	28.0	850
11...	1152	29.0	850
19...	1552	--	400

DATE	TIME	TEMPER- ATURE (DEG C)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
JUL			
25...	1112	--	71
26...	0848	--	270
AUG			
01...	1815	31.0	360
04...	0730	24.0	550
10...	0738	23.5	770
11...	1527	23.0	730
20...	0625	21.5	770
24...	0738	19.5	680

DATE	TIME	TEMPER- ATURE (DEG C)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
AUG			
29...	0700	21.0	880
SEP			
06...	1515	34.0	690
10...	0808	16.5	690
14...	1545	15.5	650
16...	1508	17.0	700
22...	0920	10.0	630

07157740 CIMARRON RIVER NEAR BUTTERMILK, KS--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3250	3380	3450	4210	4450	3510	3710	3900	3480	3750	1770	3370
2	3500	3380	3350	4210	4520	3450	3720	1320	3740	3710	1960	3340
3	3600	3380	3400	4210	4450	3380	3710	1620	3530	3600	1960	3310
4	3490	3380	3460	4210	4330	3370	4070	1910	3590	3510	2540	3340
5	3500	3320	3520	4250	4390	3390	3410	2630	3630	3450	2540	3260
6	3500	3350	3530	4250	4040	3410	3580	2980	3510	3500	2900	3300
7	3460	3300	3780	4250	3710	3480	3750	3340	3620	3560	3040	3260
8	3500	3340	3900	4250	3630	3570	3940	3400	3510	3590	3360	3320
9	3500	3360	4000	4250	3520	3560	3940	3160	3230	3600	3420	3350
10	3500	3320	4100	4210	3420	3560	3500	3220	3790	3580	3490	3380
11	3500	3590	4050	4210	3010	3510	1950	3280	3750	3820	3440	3250
12	3510	3420	4050	4210	2560	3510	2750	3530	3750	3790	3400	3280
13	3510	3380	4020	4210	2440	3550	3540	3500	3650	3790	3560	3260
14	3510	3330	3810	4180	2580	3600	3880	3500	3580	3800	3550	3230
15	3510	3220	3600	4020	2370	3630	3830	3570	3660	3820	3550	3210
16	3500	3190	3270	3900	2660	3600	3900	3580	3740	3840	3550	3350
17	3500	3220	3040	3870	2950	3510	3970	3640	3820	966	3580	3220
18	3500	3160	2800	3840	3010	3310	3920	3470	3820	2600	3570	3220
19	3480	3360	2850	3710	3000	3110	3850	3440	3810	1980	3560	3220
20	3450	3560	3090	3550	2810	3200	3940	2840	3800	1340	3570	3220
21	3380	3580	3220	3380	2620	3560	3920	2240	3790	1360	3260	3210
22	3300	3560	3340	3400	2450	3170	4100	2790	3790	1510	3420	3150
23	3400	3380	3480	3700	3140	2830	4170	2790	3740	1330	3390	3210
24	3500	3210	3420	3610	3300	3260	4040	3020	3730	930	3330	3180
25	3500	3210	3360	3520	3460	3300	4040	3080	3650	536	3540	3180
26	3400	3210	3310	3720	3420	3440	4310	3240	3670	1440	3550	3160
27	3460	3280	3310	3910	3410	3580	4160	3400	3780	2040	3550	3290
28	3460	3320	3410	4150	3450	3530	4030	3400	3880	2220	3540	3220
29	3500	3450	3560	4370	---	3650	4020	3560	3840	2180	3580	3160
30	3500	3440	3690	4330	---	3650	3970	3360	3750	2270	3420	3160
31	3440	---	3950	4290	---	3670	---	3420	---	2130	3400	---

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.0	17.5	11.5	2.5	.0	13.5	13.0	19.0	20.5	27.5	29.0	23.0
2	23.0	17.5	8.5	1.0	.0	9.5	12.5	15.5	19.5	28.0	26.5	23.0
3	24.5	19.0	5.0	.5	.0	5.0	5.0	12.5	20.5	30.0	26.5	22.5
4	23.0	17.0	3.0	.5	.0	8.0	14.5	9.0	24.0	31.5	26.5	22.0
5	20.0	18.0	.0	.5	.0	11.0	20.0	21.0	27.0	25.5	26.5	22.0
6	18.5	18.5	.0	.0	.0	14.0	22.0	22.0	27.5	27.0	26.0	22.0
7	19.0	17.0	.0	.0	.0	15.5	24.0	22.5	20.0	28.0	25.5	21.5
8	20.0	16.5	.0	.0	.0	13.0	22.0	24.0	19.0	29.5	25.0	19.5
9	21.0	16.0	.5	.0	.0	11.5	15.0	21.0	17.5	20.0	24.5	19.5
10	21.5	8.0	.5	.0	.0	14.5	13.0	19.5	24.0	30.5	23.5	19.0
11	22.5	4.5	.0	.0	.0	15.5	14.0	18.0	29.5	29.0	22.0	18.0
12	21.0	7.5	.0	.0	.0	16.0	14.0	16.5	29.5	25.0	22.0	18.0
13	19.5	14.5	.0	.0	1.0	13.0	17.5	23.0	33.0	25.0	22.0	16.5
14	17.5	4.5	.0	.0	4.0	13.5	23.0	21.0	26.5	25.5	23.5	14.5
15	16.0	3.0	.0	.0	1.5	16.0	15.0	20.5	25.0	27.0	21.0	15.0
16	16.0	4.5	.5	.0	.0	8.5	19.0	18.0	23.5	27.0	21.5	15.0
17	17.5	7.0	1.0	.0	.0	12.0	23.0	18.0	27.0	27.0	22.5	17.0
18	18.0	9.5	2.5	.0	.0	12.0	22.5	30.0	26.0	26.5	22.5	16.0
19	19.5	6.0	6.5	.5	.0	12.0	21.0	35.5	28.0	26.5	22.5	16.5
20	20.0	2.5	4.5	.5	.0	12.0	19.0	30.5	28.5	27.5	22.5	17.5
21	20.5	.0	2.5	1.0	1.5	12.5	21.5	16.0	29.0	27.5	22.5	16.0
22	24.0	2.5	1.0	1.0	9.0	17.0	23.5	20.0	29.5	27.5	22.5	16.0
23	17.5	5.0	.0	1.0	9.0	10.5	21.0	19.5	31.5	28.0	22.0	16.5
24	16.0	7.5	2.5	.5	6.0	13.0	23.0	19.5	31.0	28.0	21.0	17.5
25	15.0	9.0	5.0	.0	9.0	13.0	15.0	18.5	32.5	29.0	20.0	18.0
26	15.5	7.5	7.0	.0	9.5	13.0	26.0	18.0	31.0	30.5	21.0	18.0
27	16.5	8.0	9.5	.0	11.5	13.0	22.5	18.0	29.5	30.5	21.0	17.0
28	17.0	9.0	7.0	.0	11.5	16.5	23.0	25.0	28.0	29.5	22.0	15.5
29	18.5	8.5	5.5	.0	---	16.0	23.5	23.5	27.0	27.5	22.5	18.0
30	20.0	4.5	4.5	.0	---	13.5	17.5	21.0	26.0	27.5	22.5	17.0
31	15.5	---	3.5	.0	---	14.0	---	19.5	---	25.0	22.5	---

07157740 CIMARRON RIVER NEAR BUTTERMILK, KS--Continued

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
MAR					
08...	1500	73	3450	710	140
APR					
13...	1100	142	--	338	130
MAY					
10...	1415	96	3150	568	148
AUG					
01...	1425	149	168	2080	837
SEP					
06...	1515	.85	3200	6	.01

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	SEDI-MENT, SUS-PENDED (MG/L)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM
AUG							
01...	1425	2080	67	83	99	99	100

07157900 CAVALRY CREEK AT COLDWATER, KS

LOCATION.--Lat 37°16'00", long 99°20'40", in NE¼NE¼ sec.14, T.32 S., R.19 W., Comanche County, Hydrologic Unit 11040008, at downstream side of county highway bridge, 1.0 mi (1.6 km) west of Coldwater, and at mile 18.3 (29.4 km).

DRAINAGE AREA.--39 mi^2 (101 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Annual maximum, water years 1957-66. October 1966 to current year.

REVISED RECORDS.--WDR KS-76-1: 1974.

GAGE.--Water-stage recorder. Datum of gage is 2,016.474 ft (614.621 m) National Geodetic Vertical Datum of 1929. Prior to October 1, 1966, crest-stage gage at present site and at datum 6.00 ft (1.829 m) lower. October 1, 1966, to September 30, 1969, water-stage recorder at present site and at datum 2.00 ft (0.610 m) higher.

REMARKS.--Records good except those for period of no gage-height record, Dec. 19 to Mar. 7, which are poor.

AVERAGE DISCHARGE.--13 years, 3.85 ft^3/s (0.109 m^3/s), 2,790 acre-ft/yr (3.44 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 10.68 ft (3.255 m), present datum, June 16, 1958 (discharge not determined). October 1966 to current year: Maximum discharge, 4,620 ft^3/s (131 m^3/s) May 26, 1978, gage height, 8.47 ft (2.582 m), from rating curve extended above 840 ft^3/s (23.8 m^3/s); minimum, 0.03 ft^3/s (0.001 m^3/s) Aug. 2, 1967.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 62 ft^3/s (1.76 m^3/s) July 25, gage height, 2.43 ft (0.741 m); no peak above base of 310 ft^3/s (8.78 m^3/s); minimum, 0.54 ft^3/s (0.015 m^3/s) Aug. 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	1.4	1.6	1.3	1.5	1.6	2.0	1.8	1.7	1.7	1.6	.69
2	1.1	1.5	1.6	1.3	1.6	1.6	1.9	2.2	1.6	1.7	1.5	.70
3	1.2	1.5	1.5	1.3	1.7	1.6	2.0	1.7	1.5	1.5	1.4	.70
4	1.2	1.5	1.6	1.3	1.8	1.6	1.9	1.6	1.5	1.6	1.3	.73
5	1.2	1.5	1.6	1.3	1.8	1.6	1.9	1.6	1.6	1.7	1.2	.82
6	1.2	1.5	1.6	1.3	1.8	2.0	1.9	1.6	1.7	1.8	1.1	.83
7	1.2	1.6	1.5	1.3	1.8	1.9	1.9	1.6	1.6	1.6	1.0	.86
8	1.2	1.6	1.5	1.3	1.8	1.6	1.8	1.6	2.2	1.4	1.0	.97
9	1.3	1.6	1.5	1.3	1.8	1.6	1.8	1.7	2.4	1.3	.97	1.0
10	1.3	1.6	1.5	1.3	1.8	1.5	1.9	1.7	2.1	1.2	.96	.96
11	1.3	1.7	1.5	1.3	1.8	1.6	1.9	1.6	1.9	1.1	.98	1.0
12	1.2	1.7	1.5	1.3	1.8	1.6	1.8	1.6	1.8	1.1	.92	1.1
13	1.2	1.7	1.5	1.4	1.7	1.6	1.8	1.6	1.7	1.0	.87	1.2
14	1.2	1.7	1.5	1.6	1.6	1.6	1.9	1.5	1.7	.96	.84	1.4
15	1.2	1.8	1.5	1.7	1.5	1.5	1.9	1.6	1.8	4.4	.89	1.5
16	1.2	1.7	1.5	1.8	1.4	1.5	1.9	1.6	1.8	9.5	.92	1.5
17	1.3	1.7	1.5	1.9	1.5	1.7	2.0	1.6	1.7	6.0	.88	1.5
18	1.2	1.7	1.5	2.0	1.6	2.3	2.0	1.8	1.7	3.5	.81	1.5
19	1.3	1.7	1.6	2.0	1.6	1.8	2.0	1.6	1.7	3.0	.79	1.5
20	1.3	1.6	1.5	2.0	1.6	1.8	2.0	1.8	1.6	2.7	.76	1.6
21	1.3	1.6	1.5	2.0	1.6	2.0	1.9	1.7	1.6	2.5	.73	1.6
22	1.3	1.7	1.5	2.0	1.6	2.2	1.9	1.6	1.5	2.4	.72	1.6
23	1.3	1.6	1.5	1.9	1.6	2.2	1.8	1.5	1.6	3.7	.70	1.5
24	1.3	1.7	1.5	1.8	1.6	2.1	1.9	1.4	1.5	4.4	.70	1.5
25	1.3	1.7	1.5	1.7	1.6	2.1	1.9	1.3	1.6	23	.78	1.5
26	1.4	1.6	1.5	1.6	1.6	2.0	1.9	1.6	1.5	2.4	.72	1.4
27	1.4	1.6	1.5	1.5	1.6	2.0	1.9	1.4	1.5	1.9	.70	1.3
28	1.4	1.6	1.4	1.4	1.6	2.1	1.9	1.4	1.6	1.8	.66	1.3
29	1.4	1.6	1.3	1.3	---	2.1	1.8	1.3	1.6	1.7	.64	1.2
30	1.4	1.6	1.3	1.3	---	2.1	1.8	2.6	1.7	1.8	.61	1.0
31	1.4	---	1.3	1.3	---	2.0	---	1.8	---	1.7	.62	---
TOTAL	39.4	48.6	46.4	47.8	46.3	56.5	56.9	51.0	51.0	96.06	28.23	35.96
MEAN	1.27	1.62	1.50	1.54	1.65	1.82	1.90	1.65	1.70	3.10	.91	1.20
MAX	1.4	1.8	1.6	2.0	1.8	2.3	2.0	2.6	2.4	23	1.6	1.6
MIN	1.1	1.4	1.3	1.3	1.4	1.5	1.8	1.3	1.5	.96	.61	.69
AC-FT	78	96	92	95	92	112	113	101	101	191	56	71

CAL YR 1978 TOTAL 2756.37 MEAN 7.55 MAX 1220 MIN .75 AC-FT 5470
WTR YR 1979 TOTAL 604.15 MEAN 1.66 MAX 23 MIN .61 AC-FT 1200

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967 to current year.

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)
AUG 02...	0925	1.8	360	14	.07
SEP 06...	1330	.85	380	5	.01

07157940 BLUFF CREEK NEAR BUTTERMILK, KS

LOCATION.--Lat 37°01'55", long 99°28'45", NW¼ sec.3, T.35 S., R.20 W., Comanche County, Hydrologic Unit 11040008, near left bank of county highway bridge, 2.2 mi (3.5 km) north of Kansas-Oklahoma State line, 11.3 mi (18.2 km) southwest of Buttermilk, and at mile 0.3 (0.5 km).

DRAINAGE AREA.--657 mi^2 (1,702 km^2), of which 76 mi^2 (197 km^2) is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1973 to September 1979 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 1,700.33 ft (518.261 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair except those for winter periods, which are poor.

AVERAGE DISCHARGE.--6 years, 42.6 ft^3/s (1.206 m^3/s), 30,860 acre-ft/yr (38.1 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,000 ft^3/s (453 m^3/s) Sept. 26, 1973, gage height, 14.35 ft (4.374 m); no flow Aug. 6, 1977, June 26 to July 17, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 357 ft^3/s (10.1 m^3/s) July 25, gage height, 5.77 ft (1.759 m), no peak above base of 1,000 ft^3/s (28.3 m^3/s); no flow June 26 to July 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.99	1.7	9.2	6.0	8.0	36	11	1.8	39	.00	13	1.0
2	.91	1.7	9.2	6.0	10	33	11	147	39	.00	8.2	1.0
3	.71	2.0	7.2	6.0	15	32	10	230	34	.00	5.4	1.0
4	.74	2.2	7.1	6.0	20	39	14	112	26	.00	3.8	1.0
5	.72	2.2	9.1	6.5	25	39	25	94	21	.00	2.9	.98
6	.74	2.4	7.9	7.0	30	32	22	57	24	.00	2.4	1.0
7	.75	2.4	5.0	7.0	35	25	19	38	24	.00	2.0	.99
8	.75	2.5	4.5	7.0	45	22	13	32	24	.00	1.9	1.0
9	.79	2.8	4.0	7.0	50	28	14	27	45	.00	1.7	1.0
10	.90	2.6	4.0	7.0	57	23	13	25	59	.00	1.4	1.1
11	.82	2.8	4.9	8.0	56	23	38	26	49	.00	1.6	1.1
12	.77	3.7	8.3	8.0	81	21	56	21	34	.00	1.5	1.2
13	.77	4.5	11	8.0	95	17	31	19	24	.00	1.4	1.2
14	.79	4.8	13	8.0	93	16	19	17	17	.00	1.3	1.2
15	.85	5.1	12	8.0	85	15	13	15	10	.00	1.2	1.2
16	.86	6.3	16	9.5	70	17	10	13	5.9	.00	1.3	1.2
17	.88	6.9	12	11	70	19	8.1	12	3.3	.00	1.2	1.2
18	.85	7.2	14	13	90	46	7.6	14	2.1	.72	1.0	1.1
19	.87	7.1	27	15	110	127	6.4	15	1.2	67	.95	1.1
20	.91	7.3	23	16	121	96	4.5	74	.52	55	1.0	1.2
21	.88	7.1	16	16	155	80	4.8	134	.41	24	.94	1.1
22	1.0	8.0	15	15	108	124	3.5	191	.46	17	.93	1.2
23	1.0	8.8	14	15	46	132	3.1	98	.10	36	.83	1.2
24	1.1	8.7	14	14	35	92	2.9	67	.05	80	.93	1.2
25	1.2	9.3	14	13	34	57	2.6	44	.04	276	1.1	1.1
26	1.3	9.8	15	12	33	28	3.6	42	.00	126	.95	1.1
27	1.4	9.6	15	9.0	32	24	2.5	55	.00	50	.90	1.2
28	1.5	8.9	16	8.0	28	22	2.4	41	.00	30	.92	1.2
29	1.5	9.0	12	7.0	---	21	2.2	32	.00	17	.87	1.1
30	1.6	8.9	9.5	6.0	---	13	1.9	28	.00	9.9	.90	1.1
31	1.6	---	8.0	6.0	---	11	---	43	---	18	.94	---
TOTAL	30.45	166.3	356.9	291.0	1637.0	1310	375.1	1764.8	483.08	806.62	65.36	33.27
MEAN	.98	5.54	11.5	9.39	58.5	42.3	12.5	56.9	16.1	26.0	2.11	1.11
MAX	1.6	9.8	27	16	155	132	56	230	59	276	13	1.2
MIN	.71	1.7	4.0	6.0	8.0	11	1.9	1.8	.00	.00	.83	.98
AC-FT	60	330	708	577	3250	2600	744	3500	958	1600	130	66

CAL YR 1978 TOTAL 17856.09 MEAN 48.9 MAX 3580 MIN .71 AC-FT 35420
WTR YR 1979 TOTAL 7319.88 MEAN 20.1 MAX 276 MIN .00 AC-FT 14520

07157940 BLUFF CREEK NEAR BUTTERMILK, KS--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974 to current year (discontinued).

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: August 1973 to current year.
WATER TEMPERATURES: August 1973 to current year.

INSTRUMENTATION.--Continuous monitor for specific conductance and water temperatures since August 1973.

REMARKS.--In addition to water-quality monitor, samples were collected by a local observer. Observer samples were used to interpret periods of monitor malfunctions.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 3,330 micromhos Oct. 3, 1977; minimum 273 micromhos Oct. 11, 1973.
WATER TEMPERATURES: Maximum, 34.0°C July 20, 1974; minimum, -0.5°C on several days during winter periods.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 2,560 micromhos Oct. 2; minimum daily, 560 micromhos Mar. 18, May 4.
WATER TEMPERATURES: Maximum daily, 29.5°C June 13; minimum daily, -0.5°C on several days during winter period.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
NOV											
09...	2.8	2100	7.8	11.0	.50	10.8	960	790	290	58	140
DEC											
14...	11	1000	7.9	3.0	6.9	13.3	420	200	120	29	51
JAN											
25...	13	900	8.4	1.0	4.0	11.3	340	110	99	23	46
MAR											
09...	20	790	8.2	6.5	13	10.6	370	140	110	22	41
APR											
13...	45	700	8.4	10.5	23	11.0	280	94	79	21	36
MAY											
10...	24	810	8.3	19.0	10	10.1	350	150	100	24	42
JUN											
13...	25	900	8.2	24.0	26	7.8	360	360	100	26	48
AUG											
01...	11	1020	8.1	31.0	10	6.6	470	250	140	30	68
SEP											
07...	.99	2500	8.0	23.0	.70	9.4	780	560	230	50	190

DATE	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)
NOV										
09...	2.0	5.4	172	770	180	.6	17	1640	2.23	12.4
DEC										
14...	1.1	4.0	220	250	51	.6	21	688	.94	20.4
JAN										
25...	1.1	3.4	230	190	38	.5	21	563	.77	19.8
MAR										
09...	.9	3.7	230	160	44	.6	18	530	.72	29.8
APR										
13...	.9	5.1	190	130	30	.6	18	459	.62	56.9
MAY										
10...	1.0	13	218	180	39	.6	18	534	.73	35.9
JUN										
13...	1.1	5.0	230	180	46	.6	19	577	.78	38.9
AUG										
01...	1.4	6.1	220	310	72	.6	24	825	1.12	26.1
SEP										
07...	3.0	3.9	220	550	320	.7	22	1550	2.11	4.14

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
NOV					
09...	.02	.01	.33	.35	.02
MAY					
10...	.08	.07	.43	.51	.08

07157940 BLUFF CREEK NEAR BUTTERMILK, KS--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	TEMPER-ATURE (DEG C)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
OCT			
04...	1235	21.5	320
07...	0705	24.0	345
19...	1645	20.5	320
24...	1700	16.0	320
NOV			
05...	1525	20.0	200
09...	0900	11.0	180
10...	1730	10.5	200
12...	1700	9.0	140
27...	1600	9.0	54
DEC			
06...	1445	1.0	59
08...	1505	.5	100
14...	1400	3.0	51
20...	1415	8.0	41
JAN			
18...	1600	2.5	87
21...	1500	3.0	29
22...	1520	3.5	31
25...	1210	1.0	38
FEB			
07...	1740	2.0	43
19...	1745	2.0	19
24...	1338	6.5	32

DATE	TIME	TEMPER-ATURE (DEG C)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
FEB			
27...	1545	11.5	33
MAR			
09...	0830	6.5	44
13...	1158	13.0	38
21...	1600	16.5	25
23...	0638	10.5	21
30...	1457	13.5	41
APR			
11...	1940	15.0	26
13...	0920	10.5	30
15...	2055	15.5	33
17...	1800	23.0	50
19...	1110	20.5	33
22...	1810	23.0	59
MAY			
02...	1910	17.5	21
09...	2123	22.0	35
10...	1540	19.0	39
16...	0900	17.5	45
22...	1330	19.5	30
29...	0950	21.0	39
JUN			
05...	1330	26.0	47

DATE	TIME	TEMPER-ATURE (DEG C)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
JUN			
09...	1300	18.0	23
13...	1140	24.0	46
14...	1100	25.0	42
22...	1740	30.5	140
JUL			
02...	0902	26.5	300
13...	0930	34.5	390
19...	1545	26.0	95
21...	1045	22.5	230
25...	1105	23.0	5.2
AUG			
01...	1100	--	63
01...	1750	31.0	72

DATE	TIME	TEMPER-ATURE (DEG C)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
AUG			
08...	0635	--	180
09...	1340	--	170
17...	1100	--	210
24...	0730	--	280
27...	0808	--	270
SEP			
03...	1700	--	430
06...	0715	--	350
07...	1200	23.0	320
14...	1552	--	340
18...	1430	--	460
23...	1545	--	520

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
AUG					
01...	1625	11	--	100	3.2
SEP					
07...	1200	.99	2500	1	.00

07157940 BLUFF CREEK NEAR BUTTERMILK, KS--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2500	2230	701	1530	778	718	744	733	835			
2	2560	2180	900	1560	780	723	738	643	835			
3	2200	2050	1000	1560	727	726	773	643	840			
4	2130	1970	1040	1330	720	710	727	560	854			
5	2170	1970	1080	1250	710	710	732	596	862			
6	2240	1880	1050	1160	792	726	740	646	858			
7	2270	1960	1090	970	874	740	746	732	858			
8	2260	2040	1140	780	772	710	742	730	858			
9	2230	1850	1210	805	770	688	740	742	825			
10	2240	1620	1040	1020	778	714	727	754	812			
11	2260	1520	1030	1230	647	752	702	756	810			
12	2200	1360	1010	1220	644	743	724	757	825			
13	2030	1180	919	1220	638	768	686	836	865			
14	2030	1160	828	1230	636	760	728	860	896			
15	2070	1050	836	1230	604	752	750	873	988			
16	2160	975	856	1220	620	731	757	873	1150			
17	2210	971	788	1210	590	727	739	907	1080			
18	2210	967	764	1200	580	617	746	878	1150			
19	2170	954	757	1150	577	560	745	870	1060			
20	2200	959	824	954	578	570	735	809	1270			
21	2220	938	799	733	647	585	700	748	1370			
22	2110	874	794	744	602	599	790	802	1820			
23	2050	881	960	686	704	600	870	806	1940			
24	2090	858	935	780	726	671	737	813	1950			
25	2170	798	920	866	748	720	728	825	1910			
26	2250	778	910	866	753	755	655	830	1870			
27	2250	776	880	866	764	767	682	817	2060			
28	2250	739	921	783	761	800	677	830	1930			
29	2330	727	1420	778	---	798	679	845	2060			
30	2240	718	1390	780	---	816	675	852	2130			
31	2240	---	1470	788	---	788	---	828	---			

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.5	10.0	3.5	-0.5	.0	8.0	11.0	17.0	15.0	26.0		
2	19.0	14.0	.0	-0.5	.0	4.5	10.5	16.0	16.0	25.5		
3	21.0	15.0	.5	.0	.0	1.0	11.0	11.0	16.5	25.5		
4	17.0	14.0	.0	.0	.0	4.5	11.5	13.0	20.5	26.0		
5	16.0	14.0	.0	.0	.0	6.5	16.0	16.5	23.5	25.5		
6	15.5	14.5	.0	.0	.0	9.0	18.0	19.0	25.0	23.0		
7	16.0	13.5	.0	-0.5	-0.5	10.5	20.0	20.5	18.0	24.0		
8	17.5	15.5	.0	.0	.0	9.0	18.5	22.0	17.0	26.0		
9	18.5	9.5	.5	.0	.0	7.5	13.0	20.0	16.0	23.0		
10	18.0	6.5	.5	.0	.0	9.0	11.0	18.0	20.5	24.5		
11	18.5	7.0	.0	.0	.5	10.0	13.0	16.0	25.5	25.0		
12	17.5	9.5	.0	.0	.0	10.5	13.0	14.0	25.0	24.0		
13	14.5	6.0	.0	.0	.0	9.0	16.0	21.0	24.5	24.5		
14	12.5	4.0	.0	.0	1.5	7.5	15.5	23.0	25.5	26.0		
15	13.5	3.5	.0	.0	.5	6.0	17.5	22.0	24.5	26.0		
16	13.5	5.5	.0	.0	.0	7.5	19.5	15.5	24.5	26.0		
17	14.0	5.5	2.0	.0	.0	12.5	19.5	15.5	24.5	25.0		
18	15.0	4.5	7.5	.0	.0	11.5	19.0	12.0	25.0	25.0		
19	14.5	2.5	4.5	.0	.0	11.0	20.5	13.0	24.0	24.5		
20	15.5	1.0	1.5	.0	.5	11.0	20.0	12.0	22.5	26.0		
21	16.5	3.5	1.0	.0	.0	11.0	18.0	12.0	24.5	26.0		
22	15.5	7.0	1.0	.0	1.0	15.5	17.5	17.5	25.0	26.0		
23	12.0	6.0	.5	.0	4.0	9.5	19.5	18.0	24.0	26.0		
24	12.0	8.0	1.0	.0	1.5	12.0	20.0	15.5	22.5	26.0		
25	12.0	7.5	.5	.0	7.0	12.0	17.5	16.0	23.5	24.5		
26	12.0	4.0	.0	.0	4.0	12.0	16.5	16.0	24.0	27.0		
27	12.0	4.0	2.5	.0	6.5	12.0	15.5	15.0	25.0	28.5		
28	12.5	5.0	.0	.0	6.5	15.5	18.5	22.0	25.0	28.5		
29	14.0	5.5	.0	.0	---	15.0	14.0	18.5	26.0	27.5		
30	15.0	5.5	-0.5	.0	---	12.5	---	19.5	26.0	25.5		
31	14.0	---	-0.5	.0	---	13.0	---	17.0	---	23.0		

07165900 TORONTO LAKE NEAR TORONTO, KS

LOCATION.--Lat 37°44'30", long 95°56'00", in NW¼SE¼ sec.36, T.26 S., R.13 E., Woodson County, Hydrologic Unit 11070101, in control tower of dam on Verdigris River, 4.0 mi (6.4 km) southeast of town of Toronto, and at mile 271.5 (436.8 km).

DRAINAGE AREA.--730 mi^2 (1,891 km^2).

ELEVATION RECORDS

PERIOD OF RECORD.--March 1960 to current year. Prior to October 1971 published as "Toronto Reservoir".

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Reservoir is formed by compacted earthfill dam. Storage began Mar. 15, 1960. Maximum pool is 311,200 acre-ft (384 hm^3) at elevation 940.6 ft (286.69 m) consisting of the following: Minimum pool, 13,000 acre-ft (16.0 hm^3) at elevation 897.0 ft (273.41 m); conservation pool, 10,290 acre-ft (12.7 hm^3) between elevations 897.0 ft (273.41 m) and 901.5 ft (274.78 m); flood-control pool, 172,000 acre-ft (212 hm^3) between elevations 901.5 ft (274.78 m) and 931.0 ft (283.77 m); uncontrolled storage, 115,900 acre-ft (143 hm^3) between elevations 931.0 ft (283.77 m) and 940.6 ft (286.69 m). Reservoir is used for flood control and conservation. Figures given herein represent total contents.

COOPERATION.--Elevations and contents furnished by Corps of Engineers; records reviewed by Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 928.35 ft (282.961 m) Sept. 16, 1961, contents, 170,000 acre-ft (210 hm^3); minimum since conservation pool first reached, 897.25 ft (273.482 m) Mar. 30, 1967, contents, 13,480 acre-ft (16.6 hm^3).

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 922.20 ft (281.087 m) June 11, contents, 123,100 acre-ft (151.8 hm^3); minimum, 898.24 ft (273.784 m) Jan. 18, contents 13,900 acre-ft (17.1 hm^3).

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on survey made by Corps of Engineers in 1966)

895	8,740	915	76,570
900	17,930	920	107,400
905	32,460	925	145,000
910	51,650		

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	899.03	898.43	898.52	898.32	898.62	904.46	903.39	901.46	901.68	903.49	903.00	902.45
2	899.01	898.41	898.55	898.32	898.61	904.55	903.29	901.90	901.70	903.36	903.47	902.47
3	898.97	898.40	898.50	898.31	898.60	905.86	903.12	902.24	901.71	903.16	904.36	902.45
4	898.95	898.40	898.48	898.30	898.60	906.15	903.12	902.27	901.75	903.06	904.35	902.44
5	898.92	898.42	898.44	898.30	898.60	906.02	903.48	902.02	901.80	906.68	904.28	902.43
6	898.89	898.48	898.48	898.31	898.58	905.63	903.47	901.73	901.81	910.85	904.16	902.45
7	898.87	898.46	898.46	898.31	898.57	905.21	903.71	901.59	901.84	912.35	904.02	902.43
8	898.83	898.43	898.43	898.29	898.56	904.73	903.94	901.57	912.23	912.96	903.87	902.40
9	898.83	898.40	898.41	898.28	898.56	904.26	904.07	901.56	919.60	913.07	903.70	902.38
10	898.82	898.41	898.40	898.27	898.55	903.81	904.07	901.57	921.70	912.16	903.57	902.35
11	898.80	898.39	898.39	898.27	898.54	903.36	904.24	901.51	922.07	911.35	903.39	902.34
12	898.78	898.38	898.38	898.26	898.53	903.03	904.25	901.45	921.19	910.91	903.21	902.34
13	898.73	898.40	898.38	898.26	898.54	902.82	904.06	901.41	919.86	909.45	903.04	902.28
14	898.71	898.40	898.38	898.25	898.55	902.58	903.83	901.40	918.49	907.47	902.90	902.24
15	898.69	898.39	898.37	898.24	898.57	902.31	903.54	901.40	916.95	905.34	902.77	902.20
16	898.65	898.44	898.36	898.25	898.65	902.14	903.23	901.40	915.24	903.05	902.62	902.19
17	898.61	898.42	898.35	898.25	898.70	902.11	902.90	901.40	913.36	901.92	902.54	902.17
18	898.60	898.43	898.35	898.35	898.73	902.21	902.57	901.47	911.31	901.98	902.51	902.15
19	898.60	898.41	898.35	898.36	898.78	902.41	902.23	901.69	909.16	901.97	902.49	902.12
20	898.59	898.40	898.35	898.37	899.15	902.56	902.02	902.77	906.87	901.98	902.45	902.12
21	898.57	898.38	898.34	898.39	900.11	902.60	901.90	903.13	904.81	902.02	902.45	902.08
22	898.56	898.39	898.33	898.42	901.65	902.73	901.77	903.09	903.97	902.05	902.43	902.05
23	898.56	898.39	898.32	898.50	903.56	903.27	901.74	902.83	904.02	902.06	902.40	902.01
24	898.53	898.39	898.30	898.53	904.18	904.21	901.82	902.55	903.78	902.07	902.42	901.98
25	898.53	898.49	898.30	898.56	904.27	904.58	901.90	902.30	903.21	902.12	902.41	901.97
26	898.50	898.56	898.29	898.57	904.24	904.63	901.93	902.10	902.63	902.15	902.45	901.94
27	898.48	898.55	898.29	898.60	904.17	904.38	901.90	901.90	902.33	902.17	902.44	901.91
28	898.46	898.52	898.28	898.60	904.36	904.13	901.79	901.69	902.73	902.16	902.43	901.91
29	898.45	898.53	898.28	898.60	---	903.83	901.66	901.59	903.41	902.30	902.46	901.90
30	898.45	898.53	898.30	898.62	---	903.68	901.52	901.62	903.53	902.67	902.47	901.88
31	898.45	---	898.32	898.62	---	903.40	---	901.64	---	902.97	902.47	---
MEAN	898.69	898.43	898.38	898.38	899.97	903.80	902.88	901.88	908.49	905.20	903.02	902.20
MAX	899.03	898.56	898.55	898.62	904.36	906.15	904.25	903.13	922.07	913.07	904.36	902.47
MIN	898.45	898.38	898.28	898.24	898.53	902.11	901.52	901.40	901.68	901.92	902.40	901.88
(+)	14,380	14,560	14,080	14,770	30,340	27,360	21,940	22,260	27,750	26,090	24,600	22,890
(#)	-1,440	+180	-480	+690	+15,570	-2,980	-5,420	+320	+5,490	-1,660	-1,490	-1,710

CAL YR 1978 .... (#) -8,150
WTR YR 1979 .... (#) +7,070

+ CONTENTS, IN ACRE-FEET, AT END OF MONTH.
# CHANGE IN CONTENTS, IN ACRE-FEET.

07166000 VERDIGRIS RIVER NEAR COYVILLE, KS

LOCATION.--Lat 37°42'20", long 95°54'20", in SW¼SW¼ sec.8, T.27 S., R.14 E., Wilson County, Hydrologic Unit 11070101, on county highway bridge, 1.2 mi (1.9 km) upstream from Meadow Creek, 1.5 mi (2.4 km) northwest of Coyville, 2.5 mi (4.0 km) downstream from Pig Creek, and at mile 268.0 (431.2 km).

DRAINAGE AREA.--747 mi^2 (1,935 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1939 to current year.

REVISED RECORDS.--WSP 1117: Drainage area. WSP 1211: 1945(M), 1948(M). WSP 1241: 1941-42, 1943(M).

GAGE.--Water-stage recorder. Datum of gage is 845.28 ft (257.64 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Jan. 25, 1952, nonrecording gage and Jan. 26, 1952, to July 17, 1961, water-stage recorder, both 100 ft (30 m) upstream at same datum. July 18, 1961, to Jan. 28, 1962, nonrecording gage at present site and datum. Since Jan. 26, 1961, auxiliary nonrecording gage 3.2 mi (5.1 km) downstream.

REMARKS.--Records fair. Flow regulated since Mar. 15, 1960 by Toronto Lake, 3.5 mi (5.6 km) upstream (see sta 07165900).

COOPERATION.--Gage-height record, and 14 discharge measurements furnished by Corps of Engineers, records computed by Geological Survey.

AVERAGE DISCHARGE.--40 years, 499 ft^3/s (14.13 m^3/s), 361,500 acre-ft/yr (446 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 130,000 ft^3/s (3,680 m^3/s) July 12, 1951, gage height, 41.25 ft (12.573 m), from graph based on gage readings, from rating curve extended above 46,000 ft^3/s (1,300 m^3/s) on basis of slope-area measurement of peak flow; no flow at times in 1939-41, 1953-58, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,070 ft^3/s (172 m^3/s) June 13, gage height, 25.11 ft (7.654 m); minimum, 1.9 ft^3/s (0.054 m^3/s) Feb. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	17	17	8.7	7.7	588	764	122	19	594	74	19
2	12	20	18	7.9	7.9	578	736	35	19	587	130	19
3	12	18	18	7.9	7.3	701	723	37	21	585	703	19
4	13	17	18	8.3	6.7	590	741	223	23	581	202	19
5	15	16	18	8.3	6.7	727	730	514	26	892	185	19
6	16	18	19	8.3	6.9	1060	718	510	26	1040	218	20
7	16	14	18	8.3	6.7	1050	52	381	25	1340	268	20
8	16	16	17	8.3	6.7	1030	14	90	1710	1330	266	20
9	16	16	17	8.3	5.6	1020	13	90	1490	1700	265	20
10	16	17	16	8.3	6.3	1010	330	90	752	3140	264	20
11	16	19	16	8.3	6.3	995	771	90	1550	3440	263	20
12	16	19	16	8.5	6.3	789	732	90	5050	1400	261	20
13	16	19	16	8.5	5.8	555	725	90	5970	3120	261	21
14	17	18	15	10	5.6	549	725	59	6040	4390	259	21
15	17	17	15	14	6.3	545	730	8.5	5950	4310	426	21
16	16	16	15	13	9.6	368	730	8.3	5820	4210	272	21
17	16	16	14	13	7.9	177	723	8.3	5660	2740	164	20
18	16	14	14	15	5.8	188	721	9.0	5500	204	38	20
19	16	12	14	16	5.4	196	716	22	5330	200	37	20
20	16	11	14	14	107	181	534	375	5160	134	32	20
21	16	9.6	13	12	198	179	344	67	4580	53	20	20
22	16	9.1	12	12	183	180	344	324	1970	52	20	21
23	12	12	12	11	357	197	186	618	1350	52	19	20
24	8.6	12	12	11	596	198	11	613	1330	52	19	21
25	8.2	14	11	12	573	186	10	520	1320	47	18	21
26	8.1	16	10	12	567	376	11	419	1240	35	19	21
27	8.8	15	9.0	12	567	746	96	418	761	35	19	20
28	10	14	8.6	11	607	741	214	417	271	35	20	20
29	13	14	8.5	11	---	739	214	264	329	40	20	20
30	14	16	8.5	11	---	757	214	22	597	47	19	20
31	17	---	8.8	9.2	---	736	---	21	---	66	19	---
TOTAL	437.7	461.7	438.4	327.1	3882.5	17932	13570	6555.1	69889	36851	4800	603
MEAN	14.1	15.4	14.1	10.6	139	578	452	211	2330	1189	155	20.1
MAX	17	20	19	16	607	1060	771	618	6040	4390	703	21
MIN	8.1	9.1	8.5	7.9	5.4	177	10	8.3	19	35	18	19
AC-FT	868	916	870	649	7700	35570	26920	13000	138600	73090	9520	1200

CAL YR 1978 TOTAL 109112.8 MEAN 299 MAX 3800 MIN 8.1 AC-FT 216400
WTR YR 1979 TOTAL 155747.5 MEAN 427 MAX 6040 MIN 5.4 AC-FT 308900

07166500 VERDIGRIS RIVER NEAR ALTOONA, KS

LOCATION.--Lat 37°29'26", long 95°40'49", in SE¼NE¼SW¼ sec.29, T.29 S., R.16 E., Wilson County, Hydrologic Unit 11070101, on downstream side of highway bridge, 2.5 mi (4.0 km) southwest of Altoona, 2.5 mi (4.0 km) downstream from Big Cedar Creek, and at mile 227.9 (366.7 km).

DRAINAGE AREA.--1,138 mi^2 (2,947 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1938 to current year. Monthly discharge only for some periods, published in WSP 1311.

REVISED RECORDS.--WSP 1117: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 780.18 ft (237.799 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Sept. 9, 1944, nonrecording gage at same site and datum.

REMARKS.--Records good. Considerable regulation since 1960 by Toronto Lake 43.6 mi (70.2 km) upstream (see sta 07165900). Diversion above station from Altoona Reservoir for municipal supply of Altoona.

COOPERATION.--Gage-height record and 13 discharge measurements furnished by Corps of Engineers; records computed by Geological Survey.

AVERAGE DISCHARGE.--41 years, 715 ft^3/s (20.25 m^3/s), 518,000 acre-ft/yr (639 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 71,000 ft^3/s (2,010 m^3/s) July 12, 1951, gage height, 31.09 (9.476 m); no flow at times in 1939-41, 1952-57, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,480 ft^3/s (212 m^3/s) June 10, gage height 18.95 ft (5.775 m), no peak above regulated base of 9,000 ft^3/s (255 m^3/s); minimum, 6.6 ft^3/s (0.187 m^3/s) Oct. 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	63	7.7	22	17	44	1430	948	213	44	637	307	26
2	64	7.0	20	16	40	957	1210	176	35	603	233	18
3	70	7.4	20	15	35	2450	935	89	31	585	615	21
4	36	9.6	18	15	34	1560	939	137	27	574	505	21
5	25	11	15	14	34	882	1080	262	27	1060	240	22
6	20	13	14	14	33	1050	930	521	26	1830	216	28
7	17	16	13	15	31	1220	769	502	26	2540	217	40
8	17	16	12	15	31	1170	245	362	1040	1520	254	39
9	17	19	12	14	30	1160	150	130	5680	4280	258	40
10	17	20	12	14	30	1140	237	109	7000	3700	258	40
11	24	18	11	14	29	1120	2030	104	2740	3550	258	39
12	18	17	12	14	28	1100	1380	100	2600	2640	258	35
13	18	18	12	15	28	778	938	100	4730	1820	258	29
14	17	19	13	15	32	594	853	99	5560	3400	258	24
15	16	22	13	15	147	578	808	95	5730	4020	277	27
16	15	28	13	14	160	570	780	55	5690	4050	465	30
17	15	29	13	14	130	376	758	32	5580	4960	251	31
18	15	24	13	21	100	369	747	26	5440	2430	106	32
19	16	23	13	179	80	857	737	25	5270	548	70	33
20	15	21	14	283	250	523	725	2050	5100	317	48	34
21	16	18	14	254	1860	342	485	1590	4920	243	46	35
22	16	16	14	203	2360	325	330	322	4040	151	45	34
23	18	16	15	187	2280	581	318	388	2130	110	38	36
24	18	14	15	171	1070	885	226	604	1500	100	31	36
25	17	18	15	121	972	524	85	577	1350	96	25	36
26	17	65	16	89	844	359	52	444	1300	94	23	38
27	15	64	15	73	757	570	45	354	1150	90	22	39
28	12	58	15	66	1150	861	59	346	594	83	22	39
29	9.3	37	15	62	---	848	205	339	283	77	53	33
30	7.4	27	15	56	---	876	216	259	371	74	47	27
31	7.3	---	17	48	---	939	---	87	---	131	31	---
TOTAL	668.0	678.7	451	2063	12619	26994	19220	10497	80014	46313	5815	962
MEAN	21.5	22.6	14.5	66.5	451	871	641	339	2667	1494	188	32.1
MAX	70	65	22	283	2360	2450	2030	2050	7000	4960	615	40
MIN	7.3	7.0	11	14	28	325	45	25	26	74	22	18
AC-FT	1320	1350	895	4090	25030	53540	38120	20820	158700	91860	11530	1910

CAL YR 1978 TOTAL 152286.51 MEAN 417 MAX 8170 MIN .18 AC-FT 302100
WTR YR 1979 TOTAL 206294.70 MEAN 565 MAX 7000 MIN 7.0 AC-FT 409200

07167500 OTTER CREEK AT CLIMAX, KS

LOCATION.--Lat 37°42'30", long 96°13'30", in SW¼SE¼ sec.8, T.27 S., R.11 E., Greenwood County, Hydrologic Unit 11070102, near right bank on downstream side of pier of bridge on State Highway 99, 0.5 mi (0.8 km) south of Climax, 5.2 mi (8.4 km) upstream from mouth, and 5.5 mi (8.8 km) downstream from South Branch.

DRAINAGE AREA.--129 mi^2 (334 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1946 to current year.

GAGE.--Water-stage recorder. Datum of gage is 977.76 ft (298.021 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Records good.

AVERAGE DISCHARGE.--33 years, 78.1 ft^3/s (2.212 m^3/s), 56,580 acre-ft/yr (69.8 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 107,000 ft^3/s (3,030 m^3/s) July 3, 1976, gage height, 31.47 ft (9.592 m); no flow at times in 1953-57, 1963-68, 1971-73, 1976, 1977, 1979.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 5,000 ft^3/s (142 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
May 20	1215	8,450	239	19.31	5.886
June 8	1430	*16,100	456	24.02	7.321

Minimum discharge, no flow Oct. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.07	.05	.82	.35	.93	180	72	18	23	28	23	3.6
2	.06	.05	.70	.40	.99	91	85	32	21	24	13	3.7
3	.06	.05	.57	.50	.99	842	80	421	19	18	39	3.7
4	.05	.06	.32	.49	.93	153	82	193	17	16	20	3.5
5	.05	.07	.32	.49	.82	97	89	101	62	270	9.8	3.5
6	.03	.26	.32	.49	.84	77	88	75	55	562	7.4	4.2
7	.02	.23	.30	.50	.85	64	76	60	26	177	6.4	4.3
8	.03	.14	.30	.50	.76	52	63	48	5600	101	5.7	3.7
9	.03	.11	.28	.49	.60	47	56	41	1900	80	5.1	3.5
10	.03	.10	.27	.49	.34	43	53	34	860	61	4.8	3.3
11	.04	.10	.27	.49	.50	36	173	30	232	46	4.6	3.3
12	.04	.11	.27	.50	.66	30	103	27	144	35	4.4	3.0
13	.04	.19	.27	.60	.50	29	72	25	109	27	4.2	2.5
14	.03	.18	.27	.60	.54	25	61	23	88	22	4.2	2.0
15	.03	.21	.27	.55	.96	22	53	20	71	18	4.4	1.4
16	.03	.43	.27	.49	1.3	20	48	18	50	19	4.9	1.1
17	.03	.82	.27	.49	1.0	19	43	16	46	18	5.1	1.1
18	.02	.70	.27	1.3	1.0	23	38	16	39	14	9.5	1.4
19	.02	.34	.27	2.7	2.0	45	44	17	35	13	82	1.4
20	.02	.28	.27	2.1	35	36	46	3150	38	12	15	1.3
21	.01	.26	.27	1.8	233	27	48	325	36	11	7.4	1.5
22	.00	.25	.28	1.8	343	28	40	140	28	9.7	5.7	1.5
23	.01	.25	.30	2.4	333	80	33	103	580	8.8	4.9	1.5
24	.02	.25	.30	2.1	95	100	31	80	118	7.9	4.5	1.6
25	.04	.66	.28	1.9	55	84	30	65	72	7.0	4.2	1.8
26	.04	1.9	.30	2.0	39	68	26	56	55	6.6	3.9	1.8
27	.04	1.4	.27	2.0	35	60	24	48	43	6.1	4.2	1.5
28	.04	.76	.27	1.7	113	56	21	41	34	5.7	4.2	1.3
29	.04	.79	.27	1.4	---	52	21	38	29	9.6	4.2	1.5
30	.04	.82	.28	1.3	---	72	19	29	25	23	4.0	1.2
31	.04	---	.30	1.2	---	68	---	26	---	32	3.7	---
TOTAL	1.05	11.82	10.02	34.16	1297.59	2626	1710	5312	10463	1688.4	323.4	70.7
MEAN	.034	.39	.32	1.10	46.3	84.7	57.0	171	349	54.5	10.4	2.36
MAX	.07	1.9	.82	2.7	343	842	173	3150	5600	562	82	4.3
MIN	.00	.05	.27	.35	.34	19	19	16	17	5.7	3.7	1.1
AC-FT	2.1	23	20	68	2570	5210	3390	10540	20750	3350	641	140

CAL YR 1978 TOTAL 19805.61 MEAN 54.3 MAX 2800 MIN .00 AC-FT 39280
WTR YR 1979 TOTAL 23548.14 MEAN 64.5 MAX 5600 MIN .00 AC-FT 46710

07168000 FALL RIVER LAKE NEAR FALL RIVER, KS

LOCATION.--Lat 37°38'48", long 96°04'39", in NW¼NE¼ sec.3, T.28 S., R.12 E., Greenwood County, Hydrologic Unit 11070102, in right bank control tower at dam on Fall River, 4.0 mi (6.4 km) northwest of town of Fall River, and at mile 54.2 (87.2 km).

DRAINAGE AREA.--585 mi^2 (1,515 km^2).

ELEVATION RECORDS

PERIOD OF RECORD.--April 1949 to current year (monthly records only prior to October 1957). Prior to October 1971 published as "Fall River Reservoir".

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Reservoir is formed by earthfill dam. Spillway is a concrete, gravity, ogee-weir type. Regulated storage began Apr. 20, 1949. Conservation pool stage, elevation, 948.5 ft (289.10 m) was first reached June 5, 1949. Elevation of top of dam, 996.5 ft (303.73 m); maximum design pool, 990.0 ft (301.75 m); flood-control pool level, 987.5 ft (300.99 m), capacity, 259,000 acre-ft (319 hm^3); and conservation pool level, 948.5 ft (289.10 m), capacity, 23,940 acre-ft (29.5 hm^3), of which 17,000 acre-ft (21.0 hm^3) is for pollution abatement. Reservoir was designed for flood control and conservation. Figures given herein represent total contents.

COOPERATION.--Elevations and contents furnished by Corps of Engineers; records reviewed by Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 987.18 ft (300.892 m) July 13, 1951, contents, 260,200 acre-ft (321 hm^3); minimum, 933.08 ft (284.403 m) Feb. 3, 1955, contents, 3,110 acre-ft (3.83 hm^3).

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 968.65 ft (295.245 m) June 11, contents, 107,400 acre-ft (132.4 hm^3), minimum, 944.97 ft (288.027 m) Jan. 17, contents, 14,560 acre-ft (18.0 hm^3).

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on survey made by Corps of Engineers, revised in 1977)

940	6,910	960	62,380
945	14,620	965	86,980
950	25,660	970	115,400
955	41,640		

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	946.22	945.45	945.34	945.03	945.28	949.85	949.16	948.86	947.85	949.25	949.88	949.40
2	946.20	945.44	945.34	945.02	945.28	950.16	949.20	949.01	947.85	949.25	950.18	949.39
3	946.17	945.42	945.34	945.02	945.29	951.71	949.20	949.65	947.85	949.26	950.45	949.39
4	946.14	945.40	945.32	945.02	945.29	952.09	949.22	949.81	947.85	949.28	950.42	949.38
5	946.11	945.39	945.31	945.02	945.29	952.07	949.61	949.66	947.85	950.37	950.31	949.35
6	946.07	945.40	945.30	945.02	945.28	951.80	949.72	949.36	947.85	951.32	950.19	949.33
7	946.04	945.40	945.30	945.02	945.28	951.49	950.00	949.12	947.85	A	950.08	949.32
8	946.00	945.41	945.27	945.02	945.28	951.16	950.25	948.83	961.45	A	949.94	949.32
9	945.97	945.40	945.27	945.02	945.28	950.82	950.36	948.54	966.02	A	949.88	949.31
10	945.95	945.38	945.26	945.01	945.27	950.47	950.45	948.41	967.98	951.66	949.81	949.31
11	945.93	945.35	945.24	945.00	945.27	950.14	950.54	948.40	968.63	951.52	949.78	949.31
12	945.91	945.34	945.23	945.00	945.27	949.79	950.60	948.40	968.15	951.33	949.75	949.30
13	945.88	945.34	945.22	944.99	945.27	949.53	950.46	948.40	967.31	951.14	949.73	949.30
14	945.86	945.33	945.21	944.99	945.27	949.24	950.28	948.40	966.16	950.94	949.71	949.29
15	945.83	945.33	945.20	944.98	945.26	948.95	950.07	948.40	964.71	950.74	949.70	949.28
16	945.80	945.34	945.19	944.98	945.27	948.78	949.83	948.40	963.14	950.61	949.70	949.28
17	945.77	945.36	945.18	944.97	945.30	948.74	949.61	948.40	961.37	950.45	949.68	949.27
18	945.75	945.36	945.17	A	945.32	948.80	949.37	A	959.44	950.26	949.63	949.26
19	945.72	945.35	945.16	A	945.35	948.83	949.12	A	957.42	950.03	949.63	949.23
20	945.70	945.33	945.15	A	945.48	948.88	949.01	A	955.26	949.88	949.62	949.16
21	945.67	945.31	945.15	A	946.23	948.87	948.96	953.12	953.43	949.78	949.60	949.12
22	945.65	945.30	945.14	A	947.45	948.97	948.90	953.07	952.76	949.68	949.52	949.08
23	945.64	945.30	945.13	A	948.68	949.45	948.87	952.57	952.58	949.57	949.47	A
24	945.62	945.29	945.12	A	949.19	950.05	948.88	952.03	952.20	949.57	949.45	A
25	945.61	945.29	945.10	A	949.43	950.35	948.88	951.45	951.60	949.54	949.45	A
26	945.59	945.33	945.09	A	949.49	950.38	A	950.88	950.95	949.52	949.44	A
27	945.57	945.34	945.07	A	949.45	950.00	A	950.25	950.29	949.51	949.44	A
28	945.55	945.34	945.05	A	949.66	949.72	A	949.61	949.38	949.49	949.43	948.88
29	945.52	945.34	945.05	945.25	---	949.40	A	948.88	949.26	949.51	949.42	948.86
30	945.50	945.34	945.04	945.27	---	949.22	948.95	948.18	949.25	949.71	949.42	948.85
31	945.47	---	945.03	945.28	---	949.13	---	947.86	---	949.82	949.41	---
MEAN	945.82	945.36	945.19	---	946.27	949.96	---	---	955.74	---	949.74	---
MAX	946.22	945.45	945.34	945.28	949.66	952.09	950.60	953.12	968.63	951.66	950.45	949.40
MIN	945.47	945.29	945.03	944.97	945.26	948.74	948.87	947.86	947.85	949.25	949.41	948.85
(+)	15,500	15,260	14,670	15,140	24,770	23,420	22,980	20,430	23,720	25,180	24,130	22,730
(#)	-1,520	-240	-590	+470	+9,630	-1,350	-440	-2,550	+3,290	+1,460	-1,050	-1,400

CAL YR 1978 .... (#) -7,580
WTR YR 1979 .... (#) +5,710

+ CONTENTS, IN ACRE-FEET, AT END OF MONTH.
# CHANGE IN CONTENTS, IN ACRE-FEET.
A NO GAGE-HEIGHT RECORD.

07168500 FALL RIVER NEAR FALL RIVER, KS

LOCATION.--Lat 37°38'34", long 96°03'33", in SW¼NE¼ sec.2, T.28 S., R.12 E., Greenwood County, Hydrologic Unit 11070102, near left bank on downstream side of highway bridge, 0.3 mi (0.5 km) downstream from Fall River Dam, 2.5 mi (4.0 km) upstream from Salt Creek, 3.0 mi (4.8 km) northwest of town of Fall River, and at mile 53.9 (86.7 km).

DRAINAGE AREA.--585 mi^2 (1,515 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1904 to September 1905 (gage heights only) published as "at Fall River", May 1939 to current year. Monthly discharge only for May 1939, published in WSP 1311.

REVISED RECORDS.--WSP 1147: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 898.44 ft (273.845 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Sept. 30, 1905, nonrecording gage at site 4.7 mi (7.6 km) downstream at datum 21.6 ft (6.58 m) lower. May 5, 1939, to June 12, 1946, nonrecording gage at present site and datum. June 13 to Aug. 26, 1946, nonrecording gage and Aug. 27, 1946, to Sept. 30, 1957, water-stage recorder, at site 3.1 mi (5.0 km) downstream at datum 12.79 ft (3.898 m) lower.

REMARKS.--Records good. Flow regulated since 1949 by Fall River Lake, 0.3 mi (0.5 km) above station (see sta 07168000).

COOPERATION.--Gage-height record and 16 discharge measurements furnished by Corps of Engineers; records computed by Geological Survey.

AVERAGE DISCHARGE.--40 years, 339 ft^3/s (9.600 m^3/s), 245,600 acre-ft/yr (303 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 45,600 ft^3/s (1,290 m^3/s) Apr. 16, 1945, gage height, 31.15 ft (9.495 m), present site and datum; no flow at times in 1939-40, 1946, 1955, 1967, 1976, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,080 ft^3/s (144 m^3/s) June 12, gage height, 12.19 ft (3.716 m); minimum, no flow part of day Apr. 7 when gates at Fall River Lake were closed.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	12	12	13	12	243	344	184	27	76	23	16
2	12	12	11	15	12	245	345	182	13	43	25	16
3	12	12	10	14	12	249	346	182	13	13	117	16
4	12	12	10	13	12	252	346	369	14	13	190	16
5	12	12	10	13	12	476	345	565	14	104	188	16
6	12	12	10	12	12	756	321	562	14	187	188	16
7	11	12	10	12	12	747	35	559	14	188	188	16
8	11	12	10	12	12	740	57	555	18	188	188	16
9	10	12	11	12	12	731	58	549	23	280	127	16
10	9.1	12	11	12	12	724	381	261	21	368	59	16
11	9.1	12	10	12	12	720	599	73	1730	328	59	16
12	9.1	12	10	12	12	601	598	73	4600	367	59	16
13	10	13	10	12	12	514	594	74	5020	365	59	16
14	11	13	10	12	12	512	592	43	5000	364	59	16
15	10	13	10	12	12	508	590	18	4920	364	59	17
16	10	12	10	12	18	311	590	20	4820	362	59	17
17	10	12	10	12	12	175	590	21	4710	360	59	17
18	10	12	10	12	12	176	585	21	4590	360	59	17
19	10	12	9.8	12	12	176	585	19	4470	359	59	17
20	10	12	10	12	12	176	409	18	4340	254	59	17
21	10	11	9.9	12	12	176	293	18	3240	182	59	17
22	12	11	9.9	12	13	176	293	559	1340	182	59	17
23	11	12	10	12	13	177	128	1110	1330	182	36	17
24	11	12	10	12	13	179	18	1100	1320	89	15	17
25	12	12	10	13	14	179	18	1090	1310	23	15	17
26	12	11	11	12	150	444	17	1080	1200	23	15	17
27	12	11	11	11	246	749	111	1070	1100	23	15	17
28	12	11	11	11	245	747	185	1050	1090	23	15	17
29	12	11	11	12	---	741	185	1040	477	23	15	17
30	12	12	11	11	---	609	185	1030	75	23	16	16
31	12	---	13	11	---	345	---	442	---	23	16	---
TOTAL	340.3	357	322.6	377	952	13554	9743	13937	56853	5739	2159	495
MEAN	11.0	11.9	10.4	12.2	34.0	437	325	450	1895	185	69.6	16.5
MAX	12	13	13	15	246	756	599	1110	5020	368	190	17
MIN	9.1	11	9.8	11	12	175	17	18	13	13	15	16
AC-FT	675	708	640	748	1890	26880	19330	27640	112800	11380	4280	982

CAL YR 1978 TOTAL 92939.9 MEAN 255 MAX 2590 MIN 9.1 AC-FT 184300
WTR YR 1979 TOTAL 104828.9 MEAN 287 MAX 5020 MIN 9.1 AC-FT 207900

07169500 FALL RIVER AT FREDONIA, KS

LOCATION.--Lat 37°30'30", long 95°50'00", in SW¼NW¼ sec.24, T.29 S., R.14 E., Wilson County, Hydrologic Unit 11070102, on downstream side of left pier of bridge on State Highway 96, 0.8 mi (1.3 km) upstream from Clear Creek, 1.0 mi (1.6 km) downstream from Salt Creek, 1.0 mi (1.6 km) south of Fredonia, and at mile 25.3 (40.7 km).

DRAINAGE AREA.--827 mi^2 (2,142 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1938 to current year. Monthly discharge only for October and November 1938, published in WSP 1311. Published as "near Fredonia" 1952-57.

REVISED RECORDS.--WSP 1117: Drainage area. WSP 1341: 1939-40.

GAGE.--Water-stage recorder. Datum of gage is 819.09 ft (249.659 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Dec. 21, 1949, nonrecording gage at same site and datum.

REMARKS.--Records good. Considerable regulation since 1949 by Fall River Lake 28.9 mi (46.5 km) above (see sta 07168000) and during low flow by Fredonia City Water Reservoir 1.0 mi (1.6 km) upstream.

COOPERATION.--Gage-height record and 12 discharge measurements furnished by Corps of Engineers; records computed by Geological Survey.

AVERAGE DISCHARGE.--41 years, 475 ft^3/s (13.45 m^3/s), 344,100 acre-ft/yr (424 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 49,000 ft^3/s (1,390 m^3/s) Apr. 16, 1945, gage height, 36.17 ft (11.025 m); no flow at times in 1939-40.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since at least 1904, that of Apr. 16, 1945.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,660 ft^3/s (245 m^3/s), June 10, gage height, 17.94 ft (5.468 m); no other peak above regulated base of 8,000 ft^3/s (227 m^3/s); minimum discharge, 7.2 ft^3/s (0.204 m^3/s) Oct. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	19	15	18	15	586	487	212	205	117	76	19
2	13	19	14	17	15	412	532	215	66	102	52	81
3	9.7	19	14	15	14	1910	434	228	35	79	1360	37
4	9.1	20	15	15	14	654	453	243	29	39	466	25
5	9.4	20	14	14	13	400	494	484	31	78	286	20
6	9.1	25	13	15	13	725	434	553	35	336	245	23
7	9.6	30	12	15	13	787	337	546	35	517	231	25
8	10	30	12	14	14	770	130	539	2480	297	223	23
9	10	30	12	13	13	757	121	532	6250	308	218	23
10	9.7	28	13	12	13	745	126	511	6410	381	156	23
11	9.5	26	14	11	14	733	917	197	743	393	96	22
12	8.1	25	14	13	19	717	762	99	3350	368	90	18
13	7.9	25	13	13	18	553	620	92	4840	388	85	17
14	8.1	25	13	12	31	532	582	92	5010	383	64	17
15	7.8	30	14	11	157	528	571	68	4940	377	135	20
16	8.0	40	14	10	126	511	561	33	4860	418	131	18
17	9.1	40	14	11	68	269	553	30	4770	591	88	18
18	9.1	35	14	20	50	262	550	32	4670	380	79	17
19	9.1	30	14	74	51	388	553	36	4570	368	75	18
20	9.9	25	13	130	267	290	546	1580	4470	359	71	22
21	11	20	14	119	620	249	340	709	4330	231	71	18
22	11	20	15	67	693	251	303	205	2050	199	73	20
23	16	30	19	82	673	380	295	930	1320	195	71	17
24	16	40	17	45	288	391	152	1070	1300	192	58	16
25	17	55	17	27	145	314	63	1040	1280	121	35	17
26	15	63	18	24	90	269	53	1030	1250	53	28	22
27	16	37	18	22	220	627	50	1030	1080	33	25	20
28	19	25	18	20	467	737	137	1010	1050	29	24	18
29	20	20	17	16	---	737	210	996	962	27	24	18
30	19	17	17	16	---	795	212	983	217	31	22	18
31	17	---	19	15	---	550	---	918	---	92	20	---
TOTAL	365.2	868	460	906	4134	17829	11578	16243	72638	7482	4698	670
MEAN	11.8	28.9	14.8	29.2	148	575	386	524	2421	241	152	22.3
MAX	20	63	19	130	693	1910	917	1580	6410	591	1360	81
MIN	7.8	17	12	10	13	249	50	30	29	27	20	16
AC-FT	724	1720	912	1800	8200	35360	22960	32220	144100	14840	9320	1330

CAL YR 1978 TOTAL 128904.4 MEAN 353 MAX 6350 MIN 7.8 AC-FT 255700
WTR YR 1979 TOTAL 137871.2 MEAN 378 MAX 6410 MIN 7.8 AC-FT 273500

07169800 ELK RIVER AT ELK FALLS, KS

LOCATION.--Lat 37°22'32", long 96°11'07", in SW¼SE¼SE¼ sec.3, T.31 S., R.11 E., Elk County, Hydrologic Unit 11070104, at downstream side of bridge on U.S. Highway 160 in Elk Falls, 2.0 mi (3.2 km) upstream from Wild Cat Creek, and at mile 57.5 (92.5 km).

DRAINAGE AREA.--220 mi^2 (570 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 897.300 ft (273.497 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Records excellent.

AVERAGE DISCHARGE.--12 years, 173 ft^3/s (4.899 m^3/s), 125,300 acre-ft/yr (154 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 200,000 ft^3/s (5,660 m^3/s) July 3, 1976, gage height, 34.85 ft (10.622 m); no flow at times in 1967, 1970-72.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 4,000 ft^3/s (113 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
June 8	1730	* 8,070	228	15.84	4.828
June 9	1945	7,850	222	15.56	4.743

Minimum discharge, 0.08 ft^3/s (0.002 m^3/s) Oct. 12-22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.09	.14	.92	1.4	2.4	104	71	22	13	58	25	2.3
2	.09	.14	.92	1.3	2.4	98	84	25	12	48	24	125
3	.10	.14	.92	1.2	2.5	680	69	50	11	40	20	71
4	.11	.23	.85	1.2	1.9	268	70	70	9.5	34	13	27
5	.10	.32	.81	1.1	1.8	140	88	65	10	259	10	16
6	.09	.65	.69	1.1	1.8	102	86	48	496	1200	8.9	11
7	.09	.70	.64	1.1	1.8	84	69	37	138	870	7.3	10
8	.09	.70	.64	.96	1.8	68	62	29	3620	401	5.7	7.4
9	.09	.70	.64	.92	1.7	59	54	25	5660	243	6.2	4.6
10	.09	.70	.61	.88	1.7	52	49	22	3250	147	9.2	3.2
11	.09	.70	.59	.81	1.7	45	142	20	1670	102	59	2.4
12	.09	.70	.60	.81	1.7	40	143	17	1120	76	38	1.8
13	.08	.76	1.0	.90	1.7	35	90	15	693	59	18	1.5
14	.08	.72	1.1	.81	2.8	31	70	13	291	48	11	1.2
15	.08	.81	1.0	.81	18	25	60	11	176	40	7.4	1.1
16	.08	1.0	.83	.81	27	21	54	10	119	34	15	1.1
17	.08	1.1	.72	.90	20	23	48	9.3	86	30	13	1.1
18	.08	1.1	.93	2.1	14	33	44	8.7	68	28	10	1.1
19	.08	1.1	.97	5.2	12	43	49	9.4	58	26	9.7	1.0
20	.08	.97	.73	8.6	61	41	50	645	50	23	30	.95
21	.08	.92	.66	13	127	36	51	398	46	20	23	.87
22	.08	.81	.61	11	169	39	49	176	41	18	13	.75
23	.12	.81	.59	10	189	81	42	104	807	17	7.9	.72
24	.12	.81	.59	10	115	103	37	66	471	16	5.1	.66
25	.12	.96	.61	9.9	67	84	33	48	252	15	3.9	.70
26	.12	1.4	.64	8.6	55	67	30	36	178	13	3.7	.67
27	.12	1.4	.61	7.7	42	59	28	30	135	11	3.4	.65
28	.12	1.2	.60	6.9	51	55	25	26	103	9.9	2.6	.57
29	.12	1.1	.98	5.1	---	52	25	22	82	9.1	3.3	.59
30	.12	.93	1.0	4.3	---	72	23	19	66	12	5.6	.59
31	.13	---	1.2	3.7	---	68	---	17	---	35	3.7	---
TOTAL	3.01	23.72	24.20	123.11	994.5	2708	1795	2093.4	19731.5	3942.0	415.6	297.52
MEAN	.097	.79	.78	3.97	35.5	87.4	59.8	67.5	658	127	13.4	9.92
MAX	.13	1.4	1.2	13	189	680	143	645	5660	1200	59	125
MIN	.08	.14	.59	.81	1.7	21	23	8.7	9.5	9.1	2.6	.57
AC-FT	6.0	47	48	244	1970	5370	3560	4150	39140	7820	824	590

CAL YR 1978 TOTAL 36891.26 MEAN 101 MAX 6620 MIN .08 AC-FT 73170
WTR YR 1979 TOTAL 32151.56 MEAN 88.1 MAX 5660 MIN .08 AC-FT 63770

07170050 ELK CITY LAKE NEAR INDEPENDENCE, KS

LOCATION.--Lat 37°16'39", long 95°46'37", in SW¼SW¼NW¼ sec.9, T.32 S., R.15 E., Montgomery County, Hydrologic Unit 11070104, in gate tower of Elk City Dam, on Elk River, 5.0 mi (8.0 km) northwest of Independence, and at mile 8.7 (14.0 km).

DRAINAGE AREA.--634 mi^2 (1,642 km^2).

ELEVATION RECORDS

PERIOD OF RECORD.--March 1966 to current year. Prior to October 1971 published as "Elk City Reservoir".

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Reservoir is formed by compacted earthfill dam. Storage began Mar. 17, 1966. Total capacity 514,300 acre-ft (634 hm^3), consisting of the following: Sedimentation, 348 acre-ft (0.429 hm^3) below elevation 764.0 ft (232.87 m); conservation, 28,660 acre-ft (35.3 hm^3) between elevations 764.0 ft (232.87 m) and 792.0 ft (241.40 m); flood control, 255,300 acre-ft (315 hm^3) between elevations 792.0 ft (241.40 m) and 825.0 ft (251.46 m); uncontrolled storage, 230,000 acre-ft (284 hm^3) between elevations 825.0 ft (251.46 m) and 838.0 ft (255.42 m). Reservoir is designed for flood control, pollution control, conservation and recreation. Figures given herein represent total contents.

COOPERATION.--Records furnished by Corps of Engineers; reviewed by Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 826.32 ft (251.862 m) July 6, 1976, contents, 302,300 acre-ft (373 hm^3); minimum since conservation pool first reached, 781.25 ft (238.125 m) Apr. 12, 1967, contents, 8,090 acre-ft (9.97 hm^3).

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 807.75 ft (246.202 m) June 12, contents, 114,200 acre-ft (140.8 hm^3); minimum, 789.80 ft (240.731 m) Nov. 14, contents, 21,760 acre-ft (26.8 hm^3).

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on survey made in 1977 by Corps of Engineers)

785	10,480	800	64,500
790	22,570	805	94,820
795	40,460	810	131,500

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	790.42	789.91	790.11	789.87	791.03	794.17	798.88	795.20	796.14	795.98	792.20	791.78
2	790.40	789.90	790.10	789.87	791.05	794.47	798.92	795.34	796.14	795.95	792.24	791.78
3	790.38	789.90	790.05	789.87	791.05	795.94	799.01	795.65	796.14	795.93	793.30	791.82
4	790.33	789.90	790.07	789.88	791.05	796.42	798.92	795.89	796.23	795.92	793.36	791.83
5	790.33	789.90	790.01	789.88	791.05	796.62	798.82	796.05	796.24	796.19	793.37	791.84
6	790.31	789.90	789.98	789.88	791.07	796.74	798.90	796.16	796.26	796.62	793.24	791.82
7	790.30	789.90	789.96	789.89	791.07	796.83	799.00	796.20	796.45	797.43	793.07	791.80
8	790.29	789.90	789.98	789.88	791.07	796.89	799.02	796.24	798.20	797.69	792.87	791.75
9	790.25	789.88	789.97	789.90	791.06	796.95	799.05	796.25	801.99	797.69	792.68	791.73
10	790.25	789.86	789.97	789.90	791.07	797.00	798.85	796.23	805.77	797.35	792.55	791.70
11	790.26	789.84	789.97	789.90	791.09	797.05	798.62	796.20	807.70	796.94	792.45	791.65
12	790.20	789.84	789.99	789.93	791.10	797.10	797.52	796.17	807.41	796.44	792.42	791.61
13	790.20	789.85	789.97	789.92	791.11	797.13	796.50	796.14	806.56	796.05	792.38	791.56
14	790.18	789.90	789.98	789.92	791.17	797.12	795.53	796.10	805.51	795.74	792.25	791.51
15	790.16	789.90	789.98	789.93	791.48	797.15	794.96	796.03	804.26	795.37	792.23	791.49
16	790.13	790.00	789.98	789.94	791.63	797.18	794.87	796.01	803.00	795.21	792.17	791.45
17	790.11	789.99	789.98	789.95	791.72	797.22	794.89	796.01	801.67	794.60	792.12	791.42
18	790.08	789.96	789.96	790.12	791.77	797.57	794.92	796.03	800.59	794.24	792.09	791.40
19	790.08	789.95	789.98	790.34	791.84	797.82	794.96	796.00	799.96	793.83	792.03	791.35
20	790.07	789.94	789.98	790.55	792.07	797.92	794.98	797.78	799.00	793.43	791.95	791.35
21	790.05	789.94	789.95	790.65	792.57	797.99	794.98	798.43	798.40	793.04	791.95	791.30
22	790.03	789.98	789.93	790.74	793.02	798.12	794.98	798.46	798.26	792.60	791.90	791.26
23	790.03	789.98	789.90	790.83	793.37	798.24	795.00	798.11	798.04	792.18	791.88	791.22
24	790.01	789.97	789.91	790.87	793.54	798.37	795.07	797.71	798.09	792.03	791.85	791.20
25	789.99	790.04	789.90	790.92	793.64	798.47	795.10	797.35	797.99	792.03	791.85	791.18
26	789.99	790.10	789.90	790.96	793.71	798.52	795.12	796.99	797.72	792.02	791.83	791.16
27	789.97	790.10	789.90	790.99	793.77	798.60	795.12	796.66	797.12	791.92	791.81	791.12
28	789.96	790.11	789.90	791.00	793.97	798.69	795.17	796.35	796.44	791.95	791.80	791.10
29	789.94	790.10	789.85	791.02	---	798.80	795.16	796.12	796.10	791.95	791.77	791.06
30	789.92	790.10	789.85	791.03	---	798.80	795.15	796.14	796.08	792.08	791.75	791.02
31	789.92	---	789.90	791.04	---	798.79	---	796.14	---	792.11	791.72	---
MEAN	790.15	789.95	789.96	790.30	791.90	797.38	796.60	796.46	799.65	794.60	792.29	791.48
MAX	790.42	790.11	790.11	791.04	793.97	798.80	799.05	798.46	807.70	797.69	793.37	791.84
MIN	789.92	789.84	789.85	789.87	791.03	794.17	794.87	795.20	796.08	791.92	791.72	791.02
(+)	22,320	22,870	22,260	25,800	36,280	58,110	41,080	45,380	45,110	29,400	28,040	25,740
(#)	-1,600	+550	-610	+3,540	+10,480	+21,830	-17,030	+4,300	-270	-15,710	-1,360	-2,300

CAL YR 1978 .... (#) -7,560
WTR YR 1979 .... (#) +1,820

+ CONTENTS, IN ACRE-FEET, AT END OF MONTH.
# CHANGE IN CONTENTS, IN ACRE-FEET.

07170060 ELK RIVER BELOW ELK CITY LAKE, KS

LOCATION.--Lat 37°16'46", long 95°46'53", in NW¼SW¼NW¼ sec.9, T.32 S., R.15 E., Montgomery County, Hydrologic Unit 11070104, near left bank, 600 ft (183 m) below Elk City Dam, and at mile 8.7 (14.0 km). Aug. 17, 1978 to April 3, 1979 at site 600 ft (183 m) downstream.

DRAINAGE AREA.--634 mi^2 (1,642 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1965 to current year. Prior to October 1971, published as "below Elk City Reservoir".

GAGE.--Water-stage recorder. Datum of gage is 740.00 ft (225.552 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Records good. Flow completely regulated by Elk City Dam 600 ft (183 m) upstream (see sta 07170050).

COOPERATION.--Gage-height record and 17 discharge measurements furnished by Corps of Engineers; records computed by Geological Survey.

AVERAGE DISCHARGE.--14 years, 422 ft^3/s (11.95 m^3/s), 305,700 acre-ft/yr (377 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,700 ft^3/s (275 m^3/s) July 7, 1976, gage height, 29.73 ft (9.062 m); no flow at times in 1966, 1967, 1971, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,150 ft^3/s (118 m^3/s) June 13, 14, gage height, 19.80 ft (6.035 m); minimum discharge, no flow Apr. 7-9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.8	7.0	5.2	5.8	4.9	10	14	3.0	5.8	226	38	44
2	5.8	7.0	5.2	5.7	4.9	10	14	3.0	5.8	168	41	45
3	5.8	7.0	5.1	5.6	4.9	10	14	3.0	5.8	72	83	45
4	5.8	7.0	4.7	5.5	4.9	10	795	3.0	5.8	38	116	44
5	5.8	7.0	4.8	5.5	4.9	10	140	2.6	5.8	83	114	43
6	5.8	6.7	5.2	5.2	4.9	10	.28	2.6	5.8	125	226	42
7	5.8	6.7	5.2	5.1	4.9	10	.00	3.0	5.8	125	335	42
8	5.8	6.7	5.2	4.9	4.9	10	.00	2.6	5.8	125	334	42
9	5.8	6.7	5.2	4.9	4.9	10	.00	2.6	5.8	561	333	41
10	5.8	6.7	5.2	4.9	4.9	10	1480	60	5.8	1040	245	41
11	5.8	6.7	5.2	4.9	4.9	10	3070	109	950	1040	169	41
12	5.8	6.7	4.0	4.9	4.9	10	2850	107	3240	1040	169	41
13	6.1	6.9	5.6	4.9	4.9	10	2550	106	4040	865	170	42
14	6.1	7.1	5.8	4.9	4.9	11	2250	106	4150	746	168	42
15	6.1	7.3	5.8	4.9	4.9	11	1330	106	4140	742	168	41
16	6.1	7.3	5.8	4.9	4.9	11	273	106	4100	739	167	41
17	6.1	7.0	5.8	4.9	4.9	11	109	45	4040	736	140	40
18	6.1	6.7	5.8	4.9	4.9	12	108	3.7	3190	734	114	39
19	6.1	6.7	5.8	4.9	4.9	13	108	3.3	2060	732	111	38
20	6.1	6.7	5.8	4.9	4.9	13	108	3.3	2040	730	75	38
21	6.1	6.7	5.8	4.9	4.9	13	108	3.7	1600	726	47	38
22	6.1	6.7	5.8	4.9	7.0	13	94	471	765	724	49	38
23	6.4	6.7	5.8	4.9	10	13	1.3	1110	774	720	49	38
24	6.4	6.7	5.8	4.9	10	13	.65	1100	768	298	47	37
25	6.4	7.6	5.8	4.9	10	13	.41	919	767	52	45	36
26	6.4	7.6	5.8	4.9	10	13	.42	771	1070	47	45	36
27	6.4	7.4	5.8	4.9	10	13	1.7	770	1420	46	45	34
28	6.4	6.4	5.8	4.9	10	12	2.6	767	1410	46	45	35
29	6.4	5.8	5.8	4.9	---	12	2.6	458	771	47	45	34
30	6.8	5.5	5.8	4.9	---	11	3.0	5.8	227	49	45	33
31	7.0	---	5.8	4.9	---	11	---	5.8	---	48	44	---
TOTAL	189.2	204.7	170.2	156.0	169.9	349	15427.96	7162.0	41580.0	13470	3822	1191
MEAN	6.10	6.82	5.49	5.03	6.07	11.3	514	231	1386	435	123	39.7
MAX	7.0	7.6	5.8	5.8	10	13	3070	1110	4150	1040	335	45
MIN	5.8	5.5	4.0	4.9	4.9	10	.00	2.6	5.8	38	38	33
AC-FT	375	406	338	309	337	692	30600	14210	82470	26720	7580	2360

CAL YR 1978 TOTAL 132444.90 MEAN 363 MAX 3880 MIN 2.0 AC-FT 262700
WTR YR 1979 TOTAL 83891.96 MEAN 230 MAX 4150 MIN .00 AC-FT 166400

07170500 VERDIGRIS RIVER AT INDEPENDENCE, KS

LOCATION.--Lat 37°13'26", long 95°40'43", in NW¼NE¼NE¼ sec.32, T.32 S., R.16 E., Montgomery County, Hydrologic Unit 11070103, near right bank at downstream side of bridge on U.S. Highway 160, 1.0 mi (1.6 km) east of Independence, 3.6 mi (5.8 km) downstream from Elk River, and at mile 194.3 (312.6 km).

DRAINAGE AREA.--2,892 mi^2 (7,490 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1895 to September 1904 (monthly figures only, published in WSP 1311), October 1921 to current year.

REVISED RECORDS.--WSP 977: 1922, 1927-29. WSP 1117: Drainage area. WSP 1341: 1923-25(M), 1939.

GAGE.--Water-stage recorder. Datum of gage is 716.63 ft (218.429 m) National Geodetic Vertical Datum of 1929. Aug. 2, 1895, to Nov. 30, 1903, nonrecording gage at former milldam 5.0 mi (8.0 km) downstream and 2.5 mi (4.0 km) northwest of Liberty, at datum about 4.00 ft (1.219 m) lower. Apr. 20 to Sept. 25, 1904, nonrecording gage at Myrtle Street highway bridge 0.8 mi (1.3 km) upstream at different datum. Nov. 14, 1921, to Sept. 30, 1929, nonrecording gage at Myrtle Street bridge at datum 0.87 ft (0.265 m) higher than present datum. Oct. 1, 1929, to Dec. 25, 1933, nonrecording gage at present site and datum.

REMARKS.--Records good. Flow regulated since 1949 by Fall River Lake (see sta 07168000) and since 1960 by Toronto Lake (see sta 07169900). Since 1966, some regulation by Elk City Lake (see sta 07170050).

COOPERATION.--Gage-height record and 18 discharge measurements furnished by Corps of Engineers; records computed by Geological Survey.

AVERAGE DISCHARGE.--67 years, 1,680 ft^3/s (47.58 m^3/s), 1,217,000 acre-ft/yr (1.50 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 117,000 ft^3/s (3,310 m^3/s) Apr. 17, 1945, gage height, 47.28 ft (14.411 m); maximum gage height, 47.60 ft (14.508 m) May 19, 1943; no flow at times in 1932, 1934, 1936, 1939-40, 1953-55.

Maximum stage known since at least 1885, that of May 19, 1943.

EXTREMES FOR CURRENT YEAR.--Peak discharges above regulated base of 14,000 ft^3/s (396 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
June 11	0500	14,400	408	23.21	7.074
June 16	0100	*15,200	430	24.06	7.333

Minimum discharge, 14 ft^3/s (0.396 m^3/s) Oct. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	23	80	47	87	2780	1480	474	878	956	442	108
2	49	22	70	44	84	1910	1880	527	286	910	458	116
3	51	21	60	41	79	5010	1670	983	168	754	534	115
4	62	20	50	39	73	4710	1860	673	130	674	2970	120
5	56	20	40	38	69	1880	2340	548	129	1170	770	101
6	33	20	35	38	68	1510	1630	1090	114	2740	611	89
7	24	20	35	38	68	2240	1410	1170	121	3470	716	88
8	20	23	75	38	65	2190	889	1130	1930	2620	726	105
9	21	26	36	37	57	2120	367	856	9310	4310	741	109
10	20	32	38	37	54	2070	1400	703	13400	6930	710	107
11	21	33	36	38	55	2020	8360	693	12500	5050	523	107
12	33	32	34	38	62	1980	6620	401	6330	5560	455	104
13	29	31	33	41	67	1790	4980	318	11700	3180	443	93
14	24	32	33	38	78	1240	4250	305	14300	4040	485	84
15	20	54	33	37	349	1170	3410	302	15000	5500	1560	78
16	18	79	34	37	626	1150	1920	284	15100	5680	745	82
17	16	90	35	37	499	1070	1590	210	15000	6640	611	90
18	16	78	35	112	349	2200	1550	116	14500	6070	436	89
19	16	60	35	1710	276	2360	1550	105	12700	2010	321	88
20	17	46	37	1310	516	1460	1530	5510	12200	1450	218	88
21	20	38	36	825	2170	877	1400	5850	11700	1370	152	88
22	21	32	36	518	3530	747	909	1620	9930	1140	141	90
23	23	30	36	410	4150	1530	765	1830	6150	1030	139	91
24	25	30	36	295	2550	1550	707	2970	4190	757	133	91
25	26	60	36	250	1310	1310	401	2860	3730	328	124	87
26	26	180	36	201	1050	840	220	2560	3850	267	115	86
27	26	249	36	155	905	741	171	2400	4190	195	108	85
28	25	145	36	116	1430	1630	153	2350	3730	161	104	86
29	25	120	38	107	---	1710	253	2150	2680	141	101	93
30	24	90	38	104	---	1680	472	1450	1280	158	125	85
31	24	---	44	91	---	1850	---	1250	---	356	122	---
TOTAL	841	1736	1272	6867	20676	57325	56137	43688	207226	75617	15839	2843
MEAN	27.1	57.9	41.0	222	738	1849	1871	1409	6908	2439	511	94.8
MAX	62	249	80	1710	4150	5010	8360	5850	15100	6930	2970	120
MIN	16	20	33	37	54	741	153	105	114	141	101	78
AC-FT	1670	3440	2520	13620	41010	113700	111300	86660	411000	150000	31420	5640

CAL YR 1978 TOTAL 465821 MEAN 1276 MAX 17500 MIN 13 AC-FT 924000
WTR YR 1979 TOTAL 490067 MEAN 1343 MAX 15100 MIN 16 AC-FT 972000

07170700 BIG HILL CREEK NEAR CHERRYVALE, KS

LOCATION.--Lat 37°16'00", long 95°28'05", in SE¼SE¼ sec.7, T.32 S., R.18 E., Labette County, Hydrologic Unit 11070103, on right downstream abutment of bridge on county road, 4.3 mi (6.9 km) east of Cherryvale, and at mile 32.5 (52.3 km).

DRAINAGE AREA.--37 mi^2 (96 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1957 to current year.

GAGE.--Water-stage recorder. Datum of gage is 795.93 ft (242.599 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to May 6, 1958, nonrecording gage at same site and datum.

REMARKS.--Records fair except those prior to March 1, which are poor.

COOPERATION.--Gage-height record, 16 discharge measurements and 4 observations of no flow furnished by Corps of Engineers; records computed by Geological Survey.

AVERAGE DISCHARGE.--22 years, 27.0 ft^3/s (0.765 m^3/s), 19,560 acre-ft/yr (24.1 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 36,000 ft^3/s (1,020 m^3/s) July 3, 1976, gage height, 23.02 ft (7.016 m); no flow at times in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--A flood in 1951 reached a stage of 18.92 ft (5.767 m), from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,200 ft^3/s (34.0 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
May 20	1145	* 7,580	215	18.86	5.749
June 8	1615	2,930	83.0	16.73	5.099

Minimum discharge, no flow many days in October, November, and September.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.50	.01	3.5	85	6.5	2.8	6.3	1.1	.11	.04
2	.00	.00	.30	.01	3.0	31	7.6	7.4	6.1	.92	.08	.04
3	.00	.00	.20	.01	3.0	212	7.2	102	6.0	.78	.07	.03
4	.00	.00	.10	.01	2.5	47	8.8	71	5.6	.80	.07	.03
5	.00	.00	.09	.01	2.5	23	11	28	5.4	3.5	.05	.02
6	.00	.00	.08	.02	2.5	16	9.1	18	5.2	2.7	.08	.02
7	.00	.00	.07	.03	2.0	13	7.1	12	5.2	1.7	.06	.01
8	.00	.00	.07	.03	2.0	10	6.2	9.0	804	1.2	.06	.01
9	.00	.00	.06	.02	2.0	8.2	6.0	7.6	263	.95	.06	.00
10	.00	.00	.06	.02	2.0	6.8	11	6.3	125	.95	.07	.00
11	.00	.00	.06	.01	2.0	5.6	213	5.4	52	.83	.07	.00
12	.00	.00	.06	.01	3.0	5.2	56	5.1	22	.74	.07	.00
13	.00	.00	.06	.01	4.9	4.5	23	4.8	13	.59	.09	.00
14	.00	.00	.06	.01	5.2	4.2	15	4.4	9.9	.47	.06	.00
15	.00	.48	.06	.00	57	3.8	11	3.9	6.7	.44	8.6	.00
16	.00	2.3	.05	.00	94	3.6	8.7	3.4	5.1	8.3	.14	.00
17	.00	.76	.05	.02	94	3.5	7.4	3.3	4.1	1.3	.11	.00
18	.00	.47	.05	6.4	67	151	6.5	3.3	3.4	.36	.08	.00
19	.00	.41	.05	310	37	138	6.0	3.3	2.7	.30	.06	.00
20	.00	.33	.05	173	92	33	5.5	1920	2.3	.20	.04	.00
21	.00	.28	.04	83	101	20	5.0	110	2.0	.15	.05	.00
22	.00	.29	.03	30	120	20	4.5	39	2.0	.10	.04	.00
23	.00	.34	.02	30	100	64	4.6	26	2.4	.11	.02	.00
24	.00	.29	.01	40	36	33	4.4	18	2.1	.06	.02	.00
25	.00	2.0	.01	8.0	19	20	3.9	13	1.9	.05	.02	.00
26	.00	2.0	.01	7.0	15	14	3.6	11	1.9	.04	.60	.00
27	.00	25	.01	6.0	13	10	3.6	10	1.6	.03	.07	.00
28	.00	10	.01	5.0	82	8.9	3.5	8.8	1.5	.03	.06	.00
29	.00	2.0	.01	4.5	---	8.1	3.3	8.6	1.3	.03	.06	.00
30	.00	1.0	.01	4.0	---	7.4	3.0	7.4	1.3	3.6	.05	.00
31	.00	---	.01	3.5	---	6.6	---	7.0	---	3.3	.05	---
TOTAL	.00	47.95	2.25	710.63	967.1	1016.4	472.0	2479.8	1371.0	35.63	11.07	.20
MEAN	.000	1.60	.073	22.9	34.5	32.8	15.7	80.0	45.7	1.15	.36	.007
MAX	.00	25	.50	310	120	212	213	1920	804	8.3	8.6	.04
MIN	.00	.00	.01	.00	2.0	3.5	3.0	2.8	1.3	.03	.02	.00
AC-FT	.00	95	4.5	1410	1920	2020	936	4920	2720	71	22	.4

CAL YR 1978 TOTAL 4609.41 MEAN 12.6 MAX 767 MIN .00 AC-FT 9140
WTR YR 1979 TOTAL 7114.03 MEAN 19.5 MAX 1920 MIN .00 AC-FT 14110

07172000 CANEY RIVER NEAR ELGIN, KS

LOCATION.--Lat 37°00'13", long 96°18'54", in NW¼NW¼SE¼ sec.16, T.35 S., R.10 E., Chautauqua County, Hydrologic Unit 11070106, at county highway bridge, 2 mi (3 km) west of Elgin, and at mile 117.8 (189.5 km).

DRAINAGE AREA.--445 mi^2 (1,153 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1938 to current year. Monthly discharge only for some periods, published in WSP 1311.

REVISED RECORDS.--WSP 1117: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 763.32 ft (232.660 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Sept. 13, 1961, at site 300 ft (91.4 m) downstream at same datum.

REMARKS.--Records fair.

COOPERATION.--Gage-height record, 13 discharge measurements and one observation of no flow furnished by Corps of Engineers; records computed by Geological Survey.

AVERAGE DISCHARGE.--41 years, 240 ft^3/s (6.797 m^3/s), 173,900 acre-ft/yr (214 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 62,000 ft^3/s (1,760 m^3/s) Sept. 13, 1961, gage height, 34.70 ft (10.577 m), from floodmarks; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,670 ft^3/s (132 m^3/s) June 10, gage height 8.27 ft (2.521 m), no peak above base of 6,000 ft^3/s (170 m^3/s); no flow Oct. 13 to Nov. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.25	.00	6.0	3.0	9.8	139	207	89	30	62	22	2.9
2	.25	.00	4.9	3.2	9.4	113	237	89	26	52	12	3.5
3	.25	.00	3.6	3.0	9.3	809	234	106	24	40	11	3.1
4	.21	.00	3.0	3.2	8.9	550	269	224	23	36	11	2.8
5	.16	.00	2.3	3.3	8.5	350	295	227	21	49	9.3	2.8
6	.17	.05	1.6	3.3	8.4	278	280	176	21	416	8.0	2.6
7	.15	.09	1.2	3.2	8.6	236	255	140	113	1290	7.2	2.5
8	.14	.18	1.1	3.3	8.3	203	236	125	194	820	6.5	1.8
9	.14	.20	1.2	3.0	7.6	176	216	108	2150	400	5.8	2.2
10	.14	.31	1.3	2.9	7.2	152	295	98	2820	200	5.4	2.2
11	.12	.42	1.3	3.0	8.4	132	754	94	1340	100	4.9	1.9
12	.04	.58	1.3	3.0	100	116	456	82	1040	70	4.5	1.7
13	.00	.91	1.5	3.0	100	104	333	74	754	50	3.9	1.4
14	.00	1.2	1.7	3.2	260	94	276	66	645	35	15	1.0
15	.00	3.1	1.9	2.9	378	81	220	60	535	30	18	.85
16	.00	5.1	2.2	2.9	185	71	190	54	418	50	5.5	.74
17	.00	5.9	2.3	2.8	128	70	170	48	332	40	4.8	.65
18	.00	5.6	2.2	6.1	96	330	176	43	248	35	5.6	.53
19	.00	5.0	2.2	116	81	322	236	42	178	29	5.5	.50
20	.00	4.3	1.9	227	85	257	230	49	135	26	4.6	.49
21	.00	3.5	1.9	114	129	215	230	167	108	23	4.4	.35
22	.00	3.0	2.0	51	176	204	206	150	88	20	4.0	.27
23	.00	2.7	2.1	44	200	504	179	104	103	18	3.3	.20
24	.00	2.1	1.9	44	164	453	162	80	110	16	3.1	.13
25	.00	2.8	1.9	31	113	379	150	65	96	15	2.8	.15
26	.00	7.5	1.9	21	88	318	135	57	90	14	2.5	.15
27	.00	16	1.8	18	75	272	118	51	85	13	2.2	.14
28	.00	17	1.6	16	102	245	106	44	79	12	2.2	.10
29	.00	12	1.7	13	---	221	98	37	73	12	3.1	.14
30	.00	7.9	1.7	13	---	209	94	35	73	15	3.7	.05
31	.00	---	2.4	11	---	207	---	32	---	65	3.1	---
TOTAL	2.02	107.44	65.6	777.3	2554.4	7850	7043	2816	11952	4053	204.9	37.84
MEAN	.065	3.58	2.12	25.1	91.2	253	235	90.8	398	131	6.61	1.26
MAX	.25	17	6.0	227	378	809	754	227	2820	1290	22	3.5
MIN	.00	.00	1.1	2.8	7.2	70	94	32	21	12	2.2	.05
AC-FT	4.0	213	130	1540	5070	15570	13970	5590	23710	8040	406	75

CAL YR 1978 TOTAL 81457.17 MEAN 223 MAX 7170 MIN .00 AC-FT 161600
WTR YR 1979 TOTAL 37463.50 MEAN 103 MAX 2820 MIN .00 AC-FT 74310

07179400 COUNCIL GROVE LAKE NEAR COUNCIL GROVE, KS

LOCATION.--Lat 38°40'45", long 96°30'25", in NE¼NE¼ sec.10, T.16 S., R.8 E., Morris County, Hydrologic Unit 10270201, in control tower near right end of Council Grove Dam on Neosho River, 1.0 mi (1.6 km) northwest of Council Grove, and at mile 449.7 (723.6 km).

DRAINAGE AREA.--246 mi^2 (637 km^2).

ELEVATION RECORDS

PERIOD OF RECORD.--October 1964 to current year. Prior to October 1971 published as "Council Grove Reservoir".

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Reservoir is formed by compacted earthfill dam. The spillway is a limited service, uncontrolled, emergency type having a width of 500 ft (152.4 m). The outlet works consist of a cut and cover conduit 17 ft (5.2 m) in diameter. Regulated storage began October 9, 1964. Maximum pool, 265,400 acre-ft (327 hm^3) at elevation 1,310.0 ft (399.29 m); top of flood control pool, 112,300 acre-ft (138 hm^3) at elevation 1,289.0 ft (392.89 m), and top of conservation pool, 36,310 acre-ft (44.8 hm^3) at elevation 1,270.0 ft (389.10 m). The reservoir is used for flood control, conservation, and related beneficial water uses. Figures given herein represent total contents.

COOPERATION.--Records furnished by Corps of Engineers; reviewed by Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 1,284.64 ft (391.558 m) June 26, 1977, contents, 90,530 acre-ft (112 hm^3); minimum since conservation pool first filled, 1,265.79 ft (385.813 m) Mar. 30, 1967, contents, 27,300 acre-ft (33.7 hm^3).

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 1,276.22 ft (388.992 m) Mar. 26, contents, 56,030 acre-ft (69.1 hm^3); minimum, 1,268.55 ft (386.654 m) Nov. 12, contents, 32,280 acre-ft (39.8 hm^3).

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on a survey made in 1977 by Corps of Engineers)

1,265	23,380	1,275	51,820
1,270	36,310	1,280	70,340

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1269.07	1268.63	1268.78	1268.74	1268.98	1271.68	1275.04	1273.98	A	1273.98	1269.60	1269.85
2	1269.07	1268.61	1268.80	1268.74	1268.98	1272.09	1274.88	1274.07	A	1273.83	1269.56	1269.85
3	1269.05	1268.61	1268.78	1268.75	1268.98	1273.64	1274.76	1274.05	A	1273.75	1269.96	1269.85
4	1269.00	1268.60	1268.77	1268.75	1268.99	1273.62	1274.62	1274.04	1274.28	1273.81	1269.98	1269.84
5	1269.00	1268.62	1268.77	1268.75	1268.99	1273.55	1274.48	1274.01	1274.22	1274.39	1269.99	1269.84
6	1268.97	1268.64	1268.76	1268.75	1268.99	1273.47	1274.38	1274.00	1274.21	1274.65	1269.99	1269.87
7	1268.95	1268.62	1268.75	1268.75	1268.99	1273.38	1274.35	1273.99	1274.24	1274.86	1269.98	1269.86
8	1268.89	1268.58	1268.74	1268.75	1269.00	1273.25	1274.38	1274.02	1274.28	1274.81	1269.95	1269.83
9	1268.90	1268.57	1268.73	1268.75	1269.00	1273.19	1274.33	1274.03	1274.29	1274.75	1269.93	1269.78
10	1268.92	1268.58	1268.71	1268.75	1269.00	1273.12	1274.32	1274.10	1274.26	1274.69	1269.94	1269.77
11	1268.92	1268.57	1268.71	1268.75	1269.00	1273.00	1274.32	1274.07	1274.25	1272.79	1269.90	1269.76
12	1268.93	1268.55	1268.72	1268.75	1269.00	1272.87	1274.31	1274.06	1274.21	1271.80	1269.88	1269.75
13	1268.90	1268.59	1268.72	1268.77	1269.00	1272.73	1274.28	1274.18	1274.21	1271.25	1269.85	1269.71
14	1268.88	1268.59	1268.72	1268.79	1269.00	1272.57	1274.26	1274.18	1274.18	1270.88	1269.83	1269.69
15	1268.85	1268.58	1268.72	1268.79	1269.02	1272.41	1274.22	1274.18	1274.17	1270.67	1269.81	1269.66
16	1268.84	1268.65	1268.72	1268.78	1269.01	1272.31	1274.18	1274.18	1274.15	1271.72	1269.80	1269.63
17	1268.78	1268.64	1268.72	1268.80	1269.01	1272.38	1274.20	1274.18	1274.13	1271.48	1269.77	1269.67
18	1268.80	1268.64	1268.72	1268.80	1269.01	1274.27	1274.16	1274.12	1274.11	1270.84	1269.77	1269.60
19	1268.79	1268.63	1268.72	1268.87	1269.02	1274.49	1274.14	1274.27	1274.12	1270.07	1269.76	1269.59
20	1268.77	1268.63	1268.72	1268.87	1269.04	1274.48	1274.17	1274.28	1274.10	1269.74	1269.73	1269.58
21	1268.74	1268.60	1268.72	1268.87	1269.06	1274.36	1274.15	1274.30	1274.12	1269.73	1269.74	1269.55
22	1268.78	1268.60	1268.72	1268.88	1269.24	1274.50	1274.12	1274.33	1274.09	1269.71	1269.73	1269.51
23	1268.75	1268.62	1268.72	1268.89	1270.11	1274.90	1274.08	1274.35	1274.11	1269.71	1269.70	1269.47
24	1268.70	1268.61	1268.71	1268.89	1270.48	1275.50	1274.04	1274.35	1274.10	1269.77	1269.82	1269.46
25	1268.73	1268.68	1268.71	1268.90	1270.65	1276.06	1274.00	1274.35	1274.09	1269.78	1269.82	1269.46
26	1268.71	1268.77	1268.71	1268.92	1270.77	1276.16	1273.99	1274.35	1274.05	1269.75	1269.85	1269.41
27	1268.70	1268.78	1268.66	1268.93	1271.08	1275.94	1274.00	1274.35	1274.03	1269.74	1269.85	1269.40
28	1268.67	1268.75	1268.70	1268.93	1271.56	1275.71	1273.99	1274.35	1274.13	1269.69	1269.85	1269.40
29	1268.63	1268.77	1268.73	1268.93	---	1275.47	1273.99	A	1274.12	1269.66	1269.86	1269.39
30	1268.63	1268.77	1268.74	1268.96	---	1275.30	1273.99	A	1274.03	1269.63	1269.86	1269.38
31	1268.64	---	1268.74	1268.98	---	1275.14	---	A	---	1269.64	1269.82	---
MEAN	1268.84	1268.64	1268.73	1268.82	1269.39	1273.92	1274.27	---	---	1271.65	1269.83	1269.65
MAX	1269.07	1268.78	1268.80	1268.98	1271.56	1276.16	1275.04	1274.35	1274.29	1274.86	1269.99	1269.87
MIN	1268.63	1268.55	1268.66	1268.74	1268.98	1271.68	1273.99	1273.98	1274.03	1269.63	1269.56	1269.38
(+)	32,520	32,880	32,800	33,460	40,880	52,290	48,470	49,580	48,600	35,300	35,810	34,570
(#)	-1,300	+360	-80	+660	+7,420	+11,410	-3,820	+1,110	-980	-13,300	+510	-1,240

CAL YR 1978 .... (#) -3,630
WTR YR 1979 .... (#) +750

+ CONTENTS, IN ACRE-FEET, AT END OF MONTH.
# CHANGE IN CONTENTS, IN ACRE-FEET.
A NO GAGE-HEIGHT RECORD.

07179500 NEOSHO RIVER AT COUNCIL GROVE, KS

LOCATION.--Lat 38°39'54", long 96°29'38", in NE¼NW¼ sec.14, T.16 S., R.8 E., Morris County, Hydrologic Unit 11070201, on downstream side of center pier of highway bridge at city water plant in north part of Council Grove, 300 ft (91 m) downstream from Mozier Creek, 1.0 mi (1.6 km) upstream from Elm Creek, 1.7 mi (2.7 km) downstream from Council Grove Lake, and at mile 448.0 (721 km).

DRAINAGE AREA.--250 mi^2 (650 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1938 to current year.

REVISED RECORDS.--WSP 1117: Drainage area. WSP 1341: 1939-40(M), 1942.

GAGE.--Water-stage recorder. Datum of gage is 1,205.63 ft (367.476 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to June 7, 1940, nonrecording gage at present site and datum.

REMARKS.--Records good. Flow completely regulated by Council Grove Lake since 1964 (see sta 07179400).

AVERAGE DISCHARGE.--41 years, 122 ft^3/s (3.455 m^3/s), 88,390 acre-ft/yr (109 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 121,000 ft^3/s (3,430 m^3/s) July 11, 1951, gage height, 35.5 ft (10.82 m); 36.29 ft (11.061 m), top of surge in gage house; 37.97 ft (11.573 m), floodmark at water plant and in wire-weight gage box at upstream side of bridge, from rating curve extended above 36,000 ft^3/s (1,020 m^3/s), on basis of slope-area measurement of peak flow; maximum discharge since closure of Council Grove Dam in 1964, 6,600 ft^3/s (187 m^3/s) June 26, 1969; no flow at times in 1938-41, 1947-48, 1954-57, 1963-64, 1975.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1903 reached a stage of 37.3 ft (11.37 m) at water plant, from information by Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,350 ft^3/s (66.6 m^3/s) July 10, gage height, 12.59 ft (3.837 m); minimum, 0.80 ft^3/s (0.023 m^3/s) Jan. 14

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.2	4.6	3.5	1.8	1.8	124	358	39	18	174	48	6.7
2	5.2	5.0	3.5	1.5	1.9	350	358	39	18	174	48	6.5
3	5.0	5.0	3.2	1.3	1.9	360	357	39	18	175	34	6.5
4	4.9	5.4	3.1	1.2	1.9	355	357	39	18	178	8.7	6.5
5	4.9	5.5	3.1	1.2	1.9	351	355	39	18	180	8.7	6.5
6	4.9	6.4	2.8	1.3	2.0	349	237	39	18	179	8.7	6.8
7	4.9	6.0	2.6	1.2	1.9	347	136	40	18	177	8.7	6.4
8	4.8	6.0	2.3	1.2	2.0	346	136	30	19	176	8.6	6.4
9	4.8	6.0	2.3	1.0	2.0	348	136	20	17	175	8.5	6.4
10	4.4	6.0	2.3	.97	2.0	346	139	20	16	1280	8.6	6.4
11	4.1	6.1	2.4	1.3	2.1	346	140	20	16	2310	7.6	6.2
12	3.9	6.0	2.4	1.3	2.1	345	140	19	13	1720	7.0	6.2
13	3.9	5.7	2.4	1.0	2.1	344	136	19	12	932	7.5	6.2
14	4.1	5.6	2.4	.82	2.1	343	132	20	11	617	7.5	6.0
15	4.1	5.8	2.5	1.1	2.1	343	132	20	11	618	7.6	6.1
16	4.1	6.0	2.5	1.0	2.1	186	132	19	10	887	7.7	6.1
17	4.3	5.8	2.4	.94	2.1	36	132	19	10	1290	7.6	6.1
18	4.1	5.3	2.5	1.4	2.1	56	132	19	10	1290	7.5	5.9
19	4.1	4.5	2.6	2.3	2.2	38	132	19	10	1280	7.3	6.1
20	4.0	4.4	2.6	2.2	2.3	174	132	20	10	617	7.3	6.2
21	3.9	4.3	2.5	1.7	2.3	289	132	20	11	49	7.4	6.2
22	4.0	4.3	2.6	1.7	2.3	291	132	19	11	47	7.2	6.1
23	4.3	4.0	2.6	1.7	2.2	307	131	19	11	47	7.4	6.1
24	4.3	3.6	2.6	1.7	2.2	300	131	19	11	47	8.2	6.1
25	4.3	3.8	2.5	1.8	2.2	298	129	18	10	49	8.3	6.3
26	4.3	3.6	2.2	1.8	2.2	512	83	18	10	47	7.3	6.2
27	4.4	3.5	2.1	1.7	2.2	739	37	18	10	47	7.4	6.2
28	4.5	3.5	2.1	1.8	2.9	738	37	18	11	48	6.8	6.2
29	4.3	3.5	2.2	1.8	---	736	37	18	87	48	6.9	6.4
30	3.7	3.5	2.0	1.8	---	534	38	18	174	48	6.9	6.3
31	3.8	---	1.9	1.8	---	358	---	18	---	48	6.8	---
TOTAL	135.5	148.7	78.7	45.33	59.1	10589	4796	741	637	14954	345.7	188.3
MEAN	4.37	4.96	2.54	1.46	2.11	342	160	23.9	21.2	482	11.2	6.28
MAX	5.2	6.4	3.5	2.3	2.9	739	358	40	174	2310	48	6.8
MIN	3.7	3.5	1.9	.82	1.8	36	37	18	10	47	6.8	5.9
AC-FT	269	295	156	90	117	21000	9510	1470	1260	29660	686	373

CAL YR 1978 TOTAL 19282.43 MEAN 52.8 MAX 651 MIN .09 AC-FT 38250
WTR YR 1979 TOTAL 32718.33 MEAN 89.6 MAX 2310 MIN .82 AC-FT 64900

07179730 NEOSHO RIVER NEAR AMERICUS, KS

LOCATION.--Lat 38°28'01", long 96°15'01", in SW¼NW¼SE¼ sec.24, T.18 S., R.10 E., Lyon County, Hydrologic Unit 11070201, near right bank, 0.1 mi (0.16 km) below Ruggles Dam, 2.0 mi (3.2 km) south of Americus, 12.5 mi (20.1 km) upstream from Allen Creek, and 24.0 mi (38.6 km) upstream from Cottonwood River.

DRAINAGE AREA.--622 mi^2 (1,610 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,106.99 ft (337.411 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Aug. 8, 1963, water-stage recorder at site 0.4 mi (0.6 km) upstream at present datum.

REMARKS.--Records fair. Flow moderately regulated since 1964 by Council Grove Lake (see sta 07179400). Low flow occasionally regulated by Ruggles Dam 0.1 mi (0.16 km) upstream.

AVERAGE DISCHARGE.--16 years, 302 ft^3/s (8.553 m^3/s), 218,800 acre-ft/yr (270 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,900 ft^3/s (309 m^3/s) June 27, 1969, gage height, 28.30 ft (8.626 m); no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge recorded, 3,740 ft^3/s (106 m^3/s) Mar. 3, gage height, 19.59 ft (5.971 m), but may have been greater during day of no gage-height record Mar. 24; no peak above regulated base of 4,000 ft^3/s (113 m^3/s); minimum discharge, 5.8 ft^3/s (0.164 m^3/s) Nov. 3-5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	9.4	23	7.0	20	797	424	141	61	160	90	24
2	10	9.1	20	7.0	20	489	434	217	58	158	80	24
3	10	8.2	18	8.0	19	2480	413	425	56	157	70	23
4	10	5.8	18	8.8	18	1460	440	228	55	158	40	21
5	9.0	5.8	16	8.8	18	526	462	184	55	1300	40	19
6	9.0	6.2	15	8.8	15	466	421	177	53	1700	35	25
7	9.0	6.8	15	9.4	15	466	304	174	53	673	35	21
8	11	11	13	8.8	15	427	273	147	83	336	35	21
9	22	13	13	8.2	15	413	266	138	96	266	35	17
10	18	11	12	8.2	15	568	255	122	80	237	35	16
11	10	10	11	8.2	15	462	455	122	66	1300	30	15
12	8.0	10	10	8.2	16	406	550	113	57	1700	30	15
13	7.0	10	10	8.2	17	392	345	105	52	1150	30	13
14	7.0	10	10	8.2	17	371	293	101	46	585	30	12
15	10	12	10	8.2	19	353	263	98	42	470	30	12
16	12	13	10	8.2	16	346	251	93	48	641	25	12
17	13	18	9.4	8.8	16	234	245	92	40	1640	25	12
18	13	16	9.4	11	15	883	253	92	37	1040	25	12
19	11	26	9.4	17	15	2090	256	93	36	983	25	11
20	10	19	9.7	21	19	420	278	129	39	950	24	11
21	9.0	14	9.7	26	30	419	517	297	37	300	21	11
22	8.0	13	9.7	55	233	448	282	144	36	100	19	10
23	7.6	12	9.4	55	1140	1050	256	112	47	150	16	10
24	7.6	12	9.1	35	1290	2000	245	97	70	250	18	10
25	8.4	14	9.1	34	639	1380	237	88	54	200	39	10
26	10	58	9.1	31	353	900	226	85	41	160	91	9.4
27	10	135	8.8	29	304	799	191	82	38	130	43	9.4
28	10	55	8.8	26	724	770	156	79	84	110	30	9.1
29	9.7	33	9.4	23	---	734	150	74	145	100	26	8.5
30	9.7	25	9.0	22	---	693	143	69	110	100	22	8.8
31	9.7	---	8.0	20	---	477	---	64	---	90	21	---
TOTAL	318.7	601.3	362.0	546.0	5048	23719	9284	4182	1775	17294	1115	432.2
MEAN	10.3	20.0	11.7	17.6	180	765	309	135	59.2	558	36.0	14.4
MAX	22	135	23	55	1290	2480	550	425	145	1700	91	25
MIN	7.0	5.8	8.0	7.0	15	234	143	64	36	90	16	8.5
AC-FT	632	1190	718	1080	10010	47050	18410	8290	3520	34300	2210	857

CAL YR 1978 TOTAL 48418.0 MEAN 133 MAX 2400 MIN 5.8 AC-FT 96040
WTR YR 1979 TOTAL 64677.2 MEAN 177 MAX 2480 MIN 5.8 AC-FT 128300

07179794 MARION LAKE NEAR MARION, KS

LOCATION.--Lat 38°22'20", long 97°04'55", in NE¼ sec.27, T.19 S., R.3 E., Marion County, Hydrologic Unit 11070202, on top of dam on Cottonwood River, 3.0 mi (4.8 km) northwest of Marion, and at mile 126.7 (203.9 km).

DRAINAGE AREA.--200 mi^2 (518 km^2).

ELEVATION RECORDS

PERIOD OF RECORD.--February 1968 to current year. Prior to October 1971 published as "Marion Reservoir".

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Reservoir is formed by compacted earthfill dam. Regulated storage began Feb. 26, 1968. Total capacity, 186,500 acre-ft (230 hm^3) consisting of the following: Dead storage, 363 acre-ft (0.448 hm^3) below elevation 1,320.0 ft (402.34 m); conservation, 83,330 acre-ft (103 hm^3) between elevations 1,320.0 ft (402.34 m) and 1,350.5 ft (411.63 m); flood control, 60,210 acre-ft (74.2 hm^3) between elevations 1,350.5 ft (411.63 m) and 1,358.5 ft (414.07 m); uncontrolled storage, 42,600 acre-ft (52.5 hm^3) between elevations 1,358.5 ft (414.07 m) and 1,362.8 ft (415.38 m). Reservoir is used for flood control, water quality control, water supply, recreation, and fish and wildlife conservation. Figures given herein represent total contents.

COOPERATION.--Records furnished by Corps of Engineers, reviewed by Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 1,356.66 ft (413.510 m) Oct. 13, 1973, contents, 130,600 acre-ft (161 hm^3); minimum since first filled, 1,346.81 ft (410.508 m) Nov. 9, 1978, contents, 62,710 acre-ft (77.3 hm^3).

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 1,352.23 ft (412.160 m) July 9-10, contents, 94,860 acre-ft (117 hm^3); minimum, 1,346.81 ft (410.508 m) Nov. 9, contents, 62,710 acre-ft (77.3 hm^3).

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on survey made in 1977 by Corps of Engineers)

1,345	53,730
1,350	80,640
1,355	114,700

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1347.35	1346.90	1346.97	1347.28	1347.57	A	1350.96	1350.50	1350.66	1351.08	1350.57	1349.90
2	1347.39	1346.89	1346.97	1347.29	1347.59	A	1350.93	1350.53	1350.65	1351.03	1350.52	1349.86
3	1347.35	1346.89	1346.99	1347.27	1347.57	A	1350.92	1350.52	1350.64	1351.00	1350.50	1349.85
4	1347.33	1346.87	1346.98	1347.27	1347.57	A	1350.90	1350.51	1350.63	1351.39	1350.49	1349.83
5	1347.25	1346.87	1346.97	1347.30	1347.57	A	1350.85	1350.48	1350.63	1351.95	1350.47	1349.83
6	1347.23	1346.89	1346.95	1347.30	1347.58	A	1350.80	1350.42	1350.68	1352.16	1350.44	1349.92
7	1347.20	1346.86	1346.95	1347.30	1347.56	A	1350.79	1350.45	1350.81	1352.18	1350.40	1349.89
8	1347.18	1346.85	1346.97	1347.25	1347.57	1348.82	1350.77	1350.47	1350.87	1352.22	1350.37	1349.85
9	1347.18	1346.83	1346.96	1347.26	1347.56	1348.87	1350.73	1350.50	1350.90	1352.23	1350.35	1349.81
10	1347.19	1346.84	1346.96	1347.26	1347.56	1348.93	1350.77	1350.60	1350.89	1352.16	1350.36	1349.80
11	1347.18	1346.83	1346.96	1347.26	1347.58	1348.98	1350.76	1350.70	1350.88	1352.07	1350.33	1349.76
12	1347.17	1346.84	1346.97	1347.32	1347.56	1348.98	1350.74	1350.71	1350.86	1351.90	1350.30	1349.71
13	1347.13	1346.86	1346.95	1347.37	1347.56	1349.06	1350.70	1350.71	1350.85	1351.65	1350.28	1349.71
14	1347.13	1346.87	1346.95	1347.37	1347.56	1349.05	1350.70	1350.71	1350.80	1351.40	1350.25	1349.67
15	1347.09	1346.88	1346.95	1347.42	1347.59	1349.05	1350.66	1350.68	1350.77	1351.41	1350.23	1349.65
16	1347.06	1346.90	1346.95	1347.42	1347.57	1349.10	1350.65	1350.67	1350.75	1351.70	1350.19	1349.63
17	1347.03	1346.93	1346.92	1347.42	1347.57	1349.02	1350.80	1350.65	1350.75	1351.52	1350.20	1349.63
18	1347.03	1346.90	1346.93	1347.49	1347.57	1350.02	1350.80	1350.67	1350.71	1351.30	1350.15	1349.61
19	1347.03	1346.91	1346.94	1347.50	1347.55	1350.23	1350.82	1350.77	1350.70	1351.07	1350.15	1349.60
20	1347.02	1346.90	1347.07	1347.53	1347.56	1350.25	1350.83	1350.84	1350.71	1350.90	1350.13	1349.58
21	1347.00	1346.90	1347.05	1347.51	1347.57	1350.27	1350.82	1350.82	1350.70	1350.85	1350.13	1349.54
22	1347.10	1346.90	1347.04	1347.53	1347.72	1350.95	1350.79	1350.83	1351.42	1350.80	1350.10	1349.50
23	1347.02	1346.90	1347.20	1347.53	1347.96	1351.56	1350.78	1350.80	1351.55	1350.80	1350.07	1349.49
24	1346.95	1346.90	1347.18	1347.53	A	1351.95	1350.74	1350.80	1351.54	1350.79	1350.04	1349.50
25	1346.98	1346.96	1347.15	1347.54	A	1352.02	1350.69	1350.77	1351.54	1350.77	1350.01	1349.49
26	1346.96	1346.98	1347.11	1347.57	A	1351.89	1350.68	1350.76	1351.47	1350.74	1350.01	1349.44
27	1346.97	1346.98	1347.06	1347.56	A	1351.55	1350.62	1350.75	1351.31	1350.70	1350.00	1349.41
28	1346.93	1346.94	1347.06	1347.56	A	1351.29	1350.61	1350.74	1351.21	1350.66	1349.97	1349.42
29	1346.90	1346.97	1347.10	1347.55	---	1351.12	1350.58	1350.73	1351.15	1350.64	1349.97	1349.40
30	1346.91	1346.97	1347.15	1347.58	---	1350.99	1350.55	1350.73	1351.09	1350.61	1349.93	1349.38
31	1346.90	---	1347.32	1347.57	---	1351.01	---	1350.69	---	1350.62	1349.88	---
MEAN	1347.10	1346.90	1347.02	1347.42	---	---	1350.76	1350.66	1350.94	1351.30	1350.22	1349.66
MAX	1347.39	1346.98	1347.32	1347.58	1347.96	1352.02	1350.96	1350.84	1351.55	1352.23	1350.57	1349.92
MIN	1346.90	1346.83	1346.92	1347.25	1347.55	1348.82	1350.55	1350.42	1350.63	1350.61	1349.88	1349.38
(+)	63,180	63,550	65,420	66,760	70,020	86,910	84,000	84,870	87,420	84,440	79,930	76,960
(#)	-2,670	+370	+1,870	+1,340	+3,260	+16,890	-2,910	+870	+2,550	-2,980	-4,510	-2,970

CAL YR 1978 .... (#) -3,180
WTR YR 1979 .... (#) +11,110

+ CONTENTS, IN ACRE-FEET, AT END OF MONTH.
# CHANGE IN CONTENTS, IN ACRE-FEET.
A NO GAGE-HEIGHT RECORD.

07179795 COTTONWOOD RIVER BELOW MARION LAKE, KS

LOCATION.--Lat 38°22'00", long 97°05'00", in SE¼ sec.27, T.19 S., R.3 E., Marion County, Hydrologic Unit 11070202, on left bank, 0.25 mi (0.40 km) below outlet of dam, 1.6 mi (2.6 km) upstream from South Fork Cottonwood River, 3.0 mi (4.8 km) northwest of Marion, and at mile 126.5 (203.5 km).

DRAINAGE AREA.--200 mi^2 (520 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1968 to current year.

REVISED RECORDS.--WDR KS-77: 1976.

GAGE.--Water-stage recorder. Datum of gage is 1,296.57 ft (395.195 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1972, published as "below Marion Reservoir".

REMARKS.--Records good. Flow completely regulated by Marion Lake 0.25 mi (0.40 km) upstream (see sta 07179794).

AVERAGE DISCHARGE.--11 years, 80.5 ft^3/s (2.280 m^3/s), 58,320 acre-ft/yr (71.9 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,390 ft^3/s (96.0 m^3/s) June 13, 1971; no flow part of day June 15, 1973.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,160 ft^3/s (32.9 m^3/s) Mar. 26, gage height, 10.41 ft (3.173 m); minimum, 1.6 ft^3/s (0.045 m^3/s) Dec. 7, 8, 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.1	5.6	3.3	1.7	2.0	2.6	224	89	5.6	89	79	12
2	7.7	5.3	2.7	1.8	2.2	3.0	220	89	5.8	85	76	12
3	5.6	5.3	2.9	1.9	2.2	2.7	225	89	6.3	120	46	13
4	5.6	5.6	2.9	1.9	2.2	2.3	228	46	6.3	143	13	13
5	6.3	5.8	2.6	2.0	2.2	2.3	228	16	6.7	8.4	14	13
6	6.3	6.7	2.2	2.0	2.3	2.5	148	16	6.5	5.3	15	12
7	5.8	6.3	1.9	2.0	2.5	3.0	85	13	6.6	5.3	15	12
8	5.8	5.8	1.7	1.9	2.5	3.0	85	9.6	7.2	5.6	15	12
9	5.8	5.6	1.9	1.7	2.5	3.8	85	9.6	6.6	5.6	14	12
10	5.6	5.3	2.0	1.7	2.5	3.3	87	9.1	6.3	271	13	11
11	5.6	5.6	1.9	1.7	2.6	3.3	91	8.6	5.6	322	13	12
12	6.3	5.1	1.9	1.9	2.5	3.3	93	8.2	5.5	601	15	12
13	7.7	5.1	1.9	1.9	2.3	3.6	93	7.2	5.5	818	13	12
14	7.7	5.1	2.0	1.7	2.6	2.9	93	6.7	5.5	832	15	12
15	6.7	5.1	2.2	1.8	2.7	2.9	91	5.8	5.5	595	15	12
16	7.2	5.1	2.3	1.9	2.7	2.9	91	5.8	5.5	336	15	12
17	6.7	5.1	2.3	1.9	2.7	2.9	89	5.6	5.3	823	17	14
18	7.2	4.8	2.3	2.2	2.7	4.6	87	5.6	5.2	814	16	12
19	6.3	4.6	2.3	2.3	3.0	3.2	87	5.8	5.4	814	16	11
20	5.8	4.6	2.2	2.2	3.2	4.3	85	5.8	5.1	546	16	10
21	5.6	4.1	2.2	2.2	3.2	3.6	81	5.3	5.2	165	15	11
22	6.7	3.8	2.2	2.2	3.6	4.3	85	5.8	5.8	161	13	11
23	7.2	3.8	2.3	2.2	3.3	101	83	6.3	5.6	162	13	11
24	6.7	3.8	2.0	2.2	3.0	215	83	6.3	5.4	159	13	11
25	5.8	3.8	1.9	2.3	2.9	265	83	6.3	5.3	129	13	11
26	5.6	3.6	1.9	2.3	2.9	505	81	6.3	304	95	13	11
27	5.3	3.6	1.8	2.2	3.0	1140	81	6.3	511	84	13	11
28	5.1	3.8	1.7	2.0	2.7	1140	83	6.3	508	85	13	11
29	5.1	3.6	1.7	1.8	---	582	83	6.3	288	91	13	12
30	5.1	3.6	1.8	1.8	---	220	83	6.3	95	86	13	10
31	5.1	---	1.8	1.9	---	212	---	6.3	---	86	13	---
TOTAL	194.1	145.0	66.7	61.2	74.7	4470.3	3333	519.2	1851.3	8542.2	596	351
MEAN	6.26	4.83	2.15	1.97	2.67	144	111	16.7	61.7	276	19.2	11.7
MAX	9.1	6.7	3.3	2.3	3.6	1140	228	89	511	832	79	14
MIN	5.1	3.6	1.7	1.7	2.0	2.3	81	5.3	5.1	5.3	13	10
AC-FT	385	288	132	121	148	8870	6610	1030	3670	16940	1180	696

CAL YR 1978 TOTAL 14861.3 MEAN 40.7 MAX 566 MIN 1.7 AC-FT 29480
WTR YR 1979 TOTAL 20204.7 MEAN 55.4 MAX 1140 MIN 1.7 AC-FT 40080

07180400 COTTONWOOD RIVER NEAR FLORENCE, KS

LOCATION.--Lat 38°14'10", long 96°52'37", in NW¼SW¼ sec.10, T.21 S., R.5 E., Marion County, Hydrologic Unit 11070202, at downstream side of county highway bridge 0.4 mi (0.6 km) upstream from Martin Creek, 2.5 mi (4.0 km) east of Florence, 3.3 mi (5.3 km) downstream from Doyle Creek and at mile 102.4 (164.8 km).

DRAINAGE AREA.--754 mi^2 (1,950 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1961 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,231.49 ft (375.358 m) National Geodetic Vertical Datum of 1929. Since Aug. 10, 1965, auxiliary water-stage recorder 2.8 mi (4.5 km) downstream at datum 1,219.49 ft (371.701 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair. Flow moderately regulated since 1968 by Marion Lake 24 mi (39 km) upstream (see sta 07179794).

AVERAGE DISCHARGE.--18 years, 324 ft^3/s (9.176 m^3/s), 234,700 acre-ft/yr (289 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 56,000 ft^3/s (1,590 m^3/s) June 17, 1975, gage height, 28.03 ft (8.544 m); minimum, 5.5 ft^3/s (0.16 m^3/s) Oct. 11, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since at least 1872, 32.5 ft (9.91 m) July 11, 1951 from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges above regulated base of 3,300 ft^3/s (93.5 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Mar. 3	1900	3,870	109	11.27	3.435	June 23	1300	3,820	108	11.17	3.405
Mar. 19	0800	4,050	115	11.62	3.542	July 5	1700	* 6,410	182	16.33	4.977
*Mar. 24	0700	3,930	111	12.51	3.813						

Minimum discharge, 13 ft^3/s (0.37 m^3/s) Dec. 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	23	30	22	28	259	358	176	61	562	209	59
2	23	20	30	24	29	162	361	278	61	278	166	329
3	22	21	31	23	29	2500	361	242	59	173	146	156
4	18	24	29	22	29	1140	368	187	57	201	95	68
5	18	26	29	22	29	251	385	126	125	4820	76	54
6	17	29	30	23	31	179	368	102	61	2090	68	110
7	16	29	27	24	32	150	259	102	61	511	61	329
8	17	30	26	24	32	129	242	100	1630	278	57	107
9	18	31	26	24	32	120	229	88	1030	194	54	64
10	17	30	25	23	32	190	233	88	444	213	54	54
11	18	30	25	23	33	238	255	100	255	448	61	43
12	18	31	26	23	34	134	255	126	156	448	62	43
13	17	34	26	23	34	107	255	95	123	769	61	43
14	17	34	26	21	32	93	225	84	107	764	57	41
15	17	34	27	22	32	84	209	72	93	1200	56	41
16	16	38	27	24	28	74	205	70	82	1420	56	39
17	17	39	25	26	26	72	201	68	76	902	59	38
18	17	38	29	28	25	692	264	68	72	787	59	41
19	18	34	28	34	27	3020	242	72	68	759	59	39
20	18	31	28	36	36	385	217	202	74	723	54	38
21	18	29	28	33	59	225	217	327	66	287	49	37
22	18	28	28	30	150	632	205	132	481	217	48	36
23	20	28	27	29	868	2520	198	95	2680	229	49	36
24	20	29	26	28	1040	3570	190	80	441	246	49	34
25	22	32	26	28	371	1430	190	76	190	254	51	36
26	22	38	26	27	233	582	187	74	156	183	49	33
27	24	38	24	27	156	1160	183	70	515	156	49	33
28	24	36	26	26	190	1150	179	68	523	146	56	33
29	23	33	27	26	---	972	179	66	511	368	52	32
30	23	31	23	26	---	398	176	64	268	546	51	32
31	22	---	15	27	---	375	---	62	---	217	54	---
TOTAL	599	928	826	798	3677	22993	7396	3560	10526	20394	2127	2078
MEAN	19.3	30.9	26.6	25.7	131	742	247	115	351	658	68.6	69.3
MAX	24	39	31	36	1040	3570	385	327	2680	4820	209	329
MIN	16	20	15	21	25	72	176	62	57	146	48	32
AC-FT	1190	1840	1640	1580	7290	45610	14670	7060	20880	40450	4220	4120

CAL YR 1978 TOTAL 60602 MEAN 166 MAX 3000 MIN 15 AC-FT 120200
WTR YR 1979 TOTAL 75902 MEAN 208 MAX 4820 MIN 15 AC-FT 150600

07180500 CEDAR CREEK NEAR CEDAR POINT, KS

LOCATION.--Lat 38°11'55", long 96°49'22", in NE¼SE¼NE¼ sec.25, T.21 S., R.5 E., Chase County, Hydrologic Unit 11070202, on upstream end of right abutment of highway bridge, 4.0 mi (6.4 km) south of Cedar Point, and at mile 9.4 (15.1 km).

DRAINAGE AREA.--110 mi^2 (285 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1938 to current year. Monthly discharge only for some periods, published in WSP 1311.

REVISED RECORDS.--WSP 1211: 1944(M). WSP 1341: 1940-41, 1942(M), 1943, 1945(M).

GAGE.--Water-stage recorder. Datum of gage is 1,262.50 ft (384.810 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Sept. 28, 1944, nonrecording gage at downstream side of present bridge at same datum.

REMARKS.--Records good.

AVERAGE DISCHARGE.--41 years, 54.5 ft^3/s (1.543 m^3/s), 39,490 acre-ft/yr (48.7 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 52,400 ft^3/s (1,480 m^3/s) June 29, 1951, gage height, 23.70 ft (7.224 m), from rating curve extended above 7,500 ft^3/s (212 m^3/s) on basis of contracted-opening and flow-over-road measurement of peak discharge; no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1856, that of June 29, 1951. Flood in July 1929 reached a stage of 24.63 ft (7.507 m) from floodmarks on house on left bank where flood in 1951 reached a stage of 25.7 ft (7.83 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 16,300 ft^3/s (462 m^3/s) June 8, gage height, 22.10 ft (6.736 m); no other peak above base of 3,600 ft^3/s (102 m^3/s); no flow Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.2	2.6	3.2	3.3	4.0	20	45	31	17	49	25	7.8
2	3.0	3.3	3.0	3.2	4.0	17	50	111	17	43	25	13
3	3.1	3.2	2.9	3.2	4.0	311	44	100	17	38	22	9.3
4	2.8	3.3	2.7	3.2	4.0	67	69	49	16	51	21	6.7
5	2.4	4.0	2.7	3.2	4.0	37	152	41	871	225	20	6.5
6	2.5	6.0	2.7	3.2	4.0	28	56	37	72	71	18	9.6
7	2.5	7.1	2.6	3.2	4.0	23	50	33	46	50	15	14
8	2.5	6.1	2.7	3.2	4.0	20	47	31	8360	42	14	8.7
9	2.2	5.4	2.6	3.2	4.0	22	44	29	789	35	13	6.3
10	2.2	4.8	2.5	3.2	4.0	36	45	32	548	30	12	5.4
11	2.0	4.4	2.6	3.2	4.2	24	130	30	231	25	14	4.8
12	2.0	4.4	2.9	3.2	4.3	18	66	27	178	23	14	4.8
13	2.0	4.3	3.1	3.2	4.5	16	48	26	150	21	13	5.6
14	1.6	3.7	2.9	3.2	4.7	13	43	25	132	20	12	5.2
15	1.6	3.6	2.7	3.2	5.0	11	42	24	118	284	11	4.6
16	1.4	4.6	2.7	3.2	7.0	9.2	42	23	105	87	12	4.4
17	1.4	4.6	2.6	3.2	7.0	8.6	42	22	95	43	12	4.2
18	1.2	3.7	2.7	3.3	6.4	693	42	22	87	36	11	3.9
19	.80	3.2	2.9	3.8	6.0	149	43	23	84	33	10	3.7
20	.80	2.8	3.2	8.8	7.0	67	43	59	80	30	8.9	3.4
21	.80	2.4	3.2	8.4	20	53	41	44	72	28	7.6	4.7
22	.60	2.7	3.0	6.8	400	83	30	25	79	27	6.5	3.6
23	.60	2.7	3.2	6.6	500	373	37	22	79	27	5.6	2.9
24	.60	2.7	3.2	6.6	80	367	38	21	72	27	4.9	2.5
25	.80	3.5	3.2	6.3	50	84	37	21	65	36	8.4	2.2
26	.67	4.7	3.0	4.5	34	64	35	20	61	31	10	2.1
27	.66	4.9	3.0	4.0	26	54	34	20	58	27	10	2.0
28	1.1	4.2	3.2	4.0	23	51	33	20	54	25	10	1.1
29	2.0	3.7	3.2	4.0	---	47	33	20	50	27	9.7	1.3
30	2.4	3.2	3.3	4.0	---	44	32	19	53	25	8.5	.05
31	2.2	---	3.4	4.0	---	40	---	18	---	24	7.4	---
TOTAL	53.63	119.8	90.8	129.6	1229.1	2849.8	1501	1025	12656	1540	391.5	154.35
MEAN	1.73	3.99	2.93	4.18	43.9	91.9	50.0	33.1	422	49.7	12.6	5.15
MAX	3.2	7.1	3.4	8.8	500	693	152	111	8360	284	25	14
MIN	.60	2.4	2.5	3.2	4.0	8.6	32	18	16	20	4.9	.05
AC-FT	106	238	180	257	2440	5650	2980	2030	25100	3050	777	306

CAL YR 1978 TOTAL 11631.18 MEAN 31.9 MAX 1210 MIN .00 AC-FT 23070
WTR YR 1979 TOTAL 21740.58 MEAN 59.6 MAX 8360 MIN .05 AC-FT 43120

07182250 COTTONWOOD RIVER NEAR PLYMOUTH, KS

LOCATION.--Lat 38°23'51", long 96°21'21", in NE¼NE¼SE¼ sec.13, T.19 S., R.9 E., Chase County, Hydrologic Unit 11070203, at downstream side of county highway bridge, 0.8 mi (1.3 km) downstream from Buckeye Creek, 1.5 mi (2.4 km) southwest of Plymouth, and at mile 39.2 (63.1 km).

DRAINAGE AREA.--1,740 mi^2 (4,510 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,109.04 ft (338.035 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter periods, which are poor. Flow partially regulated by Marion Lake 87.3 mi (140.5 km) upstream since 1968 (see sta 07179794).

AVERAGE DISCHARGE.--16 years, 875 ft^3/s (24.78 m^3/s), 633,900 acre-ft/yr (782 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 57,500 ft^3/s (16.30 m^3/s) June 5, 1965, gage height, 35.70 ft (10.881 m); minimum, 8.7 ft^3/s (0.25 m^3/s) Oct. 21, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since at least 1903, 37.8 ft (11.52 m) July 11, 1951, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 4,900 ft^3/s (139 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 23	0900	5,260	149	19.84	6.047	July 5	1300	14,500	411	33.07	10.080
Mar. 25	1600	6,500	184	22.49	6.855	July 25	1300	6,780	192	23.06	7.029
June 9	0700	* 16,800	476	33.32	10.156						

Minimum discharge, 24 ft^3/s (0.68 m^3/s) Oct. 26, 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	26	56	25	50	1010	990	422	176	1160	914	87
2	36	26	50	25	50	923	994	501	170	1080	551	94
3	34	26	46	30	50	3480	935	825	163	767	473	361
4	33	27	42	30	50	3900	1070	867	158	527	396	245
5	32	27	42	30	50	2690	1370	620	159	10300	334	173
6	30	30	41	30	60	885	1280	509	929	11500	253	121
7	28	30	40	35	60	684	1050	426	452	8280	224	100
8	27	31	37	35	60	579	889	391	8990	3170	202	330
9	27	36	40	40	60	570	787	368	13800	1530	184	269
10	27	36	40	40	60	671	735	351	11300	1170	176	148
11	28	36	39	40	65	687	1200	366	5380	977	185	118
12	29	36	39	45	70	705	1110	353	1590	1170	181	106
13	28	38	39	45	75	543	925	364	1140	1090	177	95
14	28	38	39	40	80	448	800	336	916	1480	168	88
15	27	41	40	40	80	387	719	305	770	1730	155	85
16	26	50	41	40	70	349	668	285	663	2960	153	84
17	26	58	49	40	70	325	637	263	584	3580	157	80
18	26	57	39	50	70	2650	615	250	527	2000	154	78
19	28	61	40	60	80	4190	673	255	482	1690	146	76
20	28	62	41	70	114	4110	683	308	489	1550	138	77
21	27	55	41	80	654	1600	632	420	471	1470	127	76
22	26	51	41	100	1990	921	591	661	422	904	118	71
23	27	48	41	90	4930	2730	557	404	988	623	107	69
24	26	44	40	70	4130	6080	536	295	2860	620	102	67
25	25	51	40	80	3050	6310	518	255	1510	4570	112	67
26	24	65	39	80	1930	4200	493	233	611	1670	113	69
27	25	60	39	70	1310	1850	480	224	483	808	104	64
28	25	61	37	60	1200	2070	459	215	1780	628	107	62
29	25	64	39	50	---	2110	441	209	1700	543	125	57
30	26	71	35	50	---	1910	429	203	1370	585	108	56
31	26	---	25	50	---	1100	---	188	---	1260	95	---
TOTAL	867	1342	1257	1570	20518	60667	23266	11670	61033	71392	6539	3473
MEAN	28.0	44.7	40.5	50.6	733	1957	776	376	2034	2303	211	116
MAX	37	71	56	100	4930	6310	1370	867	13800	11500	914	361
MIN	24	26	25	25	50	325	429	188	158	527	95	56
AC-FT	1720	2660	2490	3110	40700	120300	46150	23150	121100	141600	12970	6890

CAL YR 1978 TOTAL 183623 MEAN 503 MAX 7200 MIN 24 AC-FT 364200
WTR YR 1979 TOTAL 263594 MEAN 722 MAX 13800 MIN 24 AC-FT 522800

07182450 JOHN REDMOND RESERVOIR NEAR BURLINGTON, KS

LOCATION.--Lat 38°14'15", long 95°46'05", in SE¼SE¼NW¼ sec.9, T.21 S., R.15 E., Coffey County, Hydrologic Unit 11070204, on the dam on Neosho River, 3,300 ft (1,000 m) southwest of spillway, 3.0 mi (4.8 km) north of Burlington, and at mile 343.7 (553.0 km).

DRAINAGE AREA.--3,015 mi^2 (7,809 km^2).

ELEVATION RECORDS

PERIOD OF RECORD.--August 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Sept. 9, 1964, nonrecording gage at same site and datum.

REMARKS.--Reservoir is formed by compacted earthfill dam. The spillway is a gate-controlled, concrete chute type structure. Filling began Sept. 7, 1963; regulated storage began Sept. 1, 1964. Maximum pool, 858,900 acre-ft (1,060 hm^3) at elevation 1,074.5 ft (327.51 m); top of flood control pool, 630,200 acre-ft (777 hm^3) at elevation 1,068.0 ft (325.53 m); and top of conservation pool, 46,510 acre-ft (57.3 hm^3) at elevation 1,036.0 ft (315.77 m). Reservoir is designed for flood control, water quality control, recreation, fish and wildlife, and future water supply. Figures given herein represent total contents.

COOPERATION.--Records furnished by Corps of Engineers; reviewed by Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 1,066.81 ft (325.164 m) Oct. 16, 1973, contents, 607,500 acre-ft (749 hm^3); minimum since pool first filled, 1,033.32 ft (314.956 m) Sept. 13, 1978, contents, 28,900 acre-ft (35.6 hm^3).

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 1,050.58 ft (320.217 m) July 9, contents, 219,000 acre-ft (270 hm^3); minimum, 1,033.33 ft (314.959 m) Oct. 29, contents, 28,960 acre-ft (35.7 hm^3).

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on survey by Corps of Engineers, computed in 1977)

1,030	13,580	1,045	137,100
1,035	39,440	1,050	209,600
1,040	80,720	1,055	299,300

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1033.58	1033.38	1034.04	1034.49	1035.18	1038.05	1039.74	1038.80	1038.84	1040.00	1040.29	1039.27
2	1033.60	1033.37	1034.12	1034.50	1035.20	1037.91	1039.36	1038.84	1038.85	1040.13	1040.08	1039.27
3	1033.58	1033.37	1034.11	1034.50	1035.21	1038.08	1039.08	1038.90	1038.87	1040.19	1040.32	1039.27
4	1033.58	1033.40	1034.14	1034.50	1035.21	1038.88	1038.93	1039.06	1038.89	1040.06	1040.00	1039.28
5	1033.55	1033.40	1034.12	1034.50	1035.22	1039.10	1039.18	1039.11	1038.90	1042.53	1039.70	1039.31
6	1033.53	1033.43	1034.12	1034.50	1035.25	1039.00	1039.30	1039.02	1038.91	1046.43	1039.33	1039.35
7	1033.50	1033.42	1034.17	1034.53	1035.28	1038.43	1039.39	1039.05	1039.53	1048.85	1039.20	1039.34
8	1033.47	1033.42	1034.17	1034.53	1035.30	1037.82	1039.43	1039.05	1042.19	1050.47	1039.16	1039.34
9	1033.50	1033.41	1034.17	1034.53	1035.30	1037.20	1039.40	1039.01	1044.51	1050.58	1039.12	1039.31
10	1033.51	1033.42	1034.18	1034.54	1035.30	1036.90	1039.40	1038.99	1046.19	1050.35	1039.12	1039.36
11	1033.54	1033.41	1034.17	1034.56	1035.30	1036.42	1039.54	1038.92	1046.78	1049.63	1039.10	1039.37
12	1033.52	1033.47	1034.20	1034.60	1035.32	1035.85	1039.77	1038.90	1046.49	1048.92	1039.10	1039.36
13	1033.50	1033.41	1034.20	1034.66	1035.32	1035.43	1039.79	1038.82	1045.26	1048.16	1039.10	1039.31
14	1033.50	1033.47	1034.20	1034.64	1035.33	1035.22	1039.64	1038.80	1044.23	1047.25	1039.12	1039.30
15	1033.48	1033.48	1034.22	1034.64	1035.43	1035.12	1039.42	1038.80	1043.61	1046.31	1039.11	1039.25
16	1033.43	1033.62	1034.27	1034.64	1035.38	1035.10	1039.22	1038.80	1043.11	1045.38	1039.11	1039.24
17	1033.40	1033.60	1034.27	1034.65	1035.44	1035.16	1039.08	1038.81	1042.57	1044.65	1039.14	1039.21
18	1033.42	1033.70	1034.27	1034.75	1035.46	1035.27	1038.94	1038.87	1042.02	1043.96	1039.17	1039.20
19	1033.42	1033.70	1034.30	1034.76	1035.48	1036.60	1038.92	1038.91	1041.61	1043.05	1039.17	1039.17
20	1033.43	1033.67	1034.36	1034.82	1035.51	1037.82	1038.98	1039.16	1041.30	1042.42	1039.12	1039.16
21	1033.40	1033.66	1034.31	1034.83	1035.53	1038.31	1039.01	1039.20	1040.98	1042.36	1039.16	1039.12
22	1033.40	1033.70	1034.32	1034.86	1035.64	1038.46	1039.10	1039.35	1040.60	1042.14	1039.17	1039.10
23	1033.40	1033.73	1034.35	1034.91	A	1038.65	1039.10	1039.46	1040.52	1041.83	1039.13	1039.06
24	1033.37	1033.72	1034.35	1034.90	A	1039.31	1039.11	1039.47	1040.42	1041.55	1039.12	1039.06
25	1033.40	1033.83	1034.40	1034.96	A	1040.22	1039.15	1039.37	1040.51	1041.31	1039.20	1039.01
26	1033.40	1033.95	1034.38	1035.03	1037.83	1040.84	1039.06	1039.22	1040.26	1041.75	1039.22	1038.99
27	1033.40	1033.92	1034.34	1035.06	1037.91	1040.98	1039.05	1039.12	1039.49	1041.69	1039.23	1038.97
28	1033.37	1033.91	1034.34	1035.06	1037.98	1040.74	1039.00	1038.97	1039.27	1041.36	1039.23	1038.99
29	1033.35	1033.98	1034.40	1035.10	---	1040.32	1038.95	1038.86	1039.66	1041.00	1039.26	1038.99
30	1033.38	1034.02	1034.40	1035.15	---	1040.25	1038.88	1038.83	1039.86	1040.69	1039.27	1038.97
31	1033.40	---	1034.48	1035.16	---	1039.99	---	1038.83	---	1040.51	1039.22	---
MEAN	1033.46	1033.60	1034.25	1034.74	---	1037.98	1039.23	1039.01	1041.47	1044.05	1039.32	1039.20
MAX	1033.60	1034.02	1034.48	1035.16	1037.98	1040.98	1039.79	1039.47	1046.78	1050.58	1040.32	1039.37
MIN	1033.35	1033.37	1034.04	1034.49	1035.18	1035.10	1038.88	1038.80	1038.84	1040.00	1039.10	1038.97
(+)	29,370	33,070	35,940	40,550	62,260	80,620	70,170	69,710	79,380	85,720	73,330	71,000
(#)	-1,180	+3,700	+2,870	+4,610	+21,710	+18,360	-10,450	-460	+9,670	+6,340	-12,390	-2,330

CAL YR 1978 .... (#) -18,630
WTR YR 1979 .... (#) +40,450

+ CONTENTS, IN ACRE-FEET, AT END OF MONTH.
# CHANGE IN CONTENTS, IN ACRE-FEET.
A NO GAGE-HEIGHT RECORD.

07182510 NEOSHO RIVER AT BURLINGTON, KS

LOCATION.--Lat 38°11'40", long 95°44'10", in SE¼NW¼ sec.26, T.21 S., R.15 E., Coffey County, Hydrologic Unit 11070204, at downstream side of highway bridge at Burlington, 0.3 mi (0.5 km) upstream from Rock Creek, and at mile 338.4 (554.5 km). Records include flow of Rock Creek.

DRAINAGE AREA.--3,042 mi^2 (7,879 km^2), includes that of Rock Creek.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1961 to current year.

GAGE.--Water-stage recorder. Datum of gage is 983.56 ft (299.789 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for period of no gage-height record, Dec. 31 to Feb. 5, which are poor. Flow completely regulated by John Redmond Reservoir 5.3 mi (8.5 km) upstream since 1963 (see sta 07182450).

AVERAGE DISCHARGE.--18 years, 1,551 ft^3/s (43.92 m^3/s), 1.124,000 acre-ft/yr (1.39 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,200 ft^3/s (742 m^3/s) Sept. 13, 1961, gage height, 31.53 ft (9.610 m); minimum daily, 1.1 ft^3/s (0.031 m^3/s) Sept. 16, 17, 19, 20, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,600 ft^3/s (300 m^3/s) June 12, gage height, 19.66 ft (5.992 m); minimum recorded 6.6 ft^3/s (0.187 m^3/s) Feb. 6, 7, result of freezeup, but may have been less during period of no gage-height record, Dec. 31 to Feb. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	49	19	18	16	17	2870	3420	816	135	918	2270	141
2	45	19	18	17	17	3810	3340	818	135	918	2250	135
3	32	19	18	17	17	4000	3240	817	135	918	2260	135
4	32	20	18	17	17	4090	2350	818	136	918	2210	136
5	34	21	19	17	17	4360	1330	825	138	1290	2180	138
6	32	26	18	17	16	4390	1330	830	137	1430	2140	142
7	33	20	13	17	16	4230	1350	830	246	292	1160	135
8	33	19	16	17	17	3940	1370	747	2430	1880	349	131
9	33	18	17	17	16	3710	1360	655	1010	8480	342	129
10	34	19	17	17	16	3440	1360	650	1740	3710	260	131
11	30	19	17	17	17	3170	1410	649	7310	7450	132	132
12	22	19	18	17	16	2940	1410	646	10400	8650	131	135
13	21	20	18	18	16	2690	1760	650	10100	8760	132	135
14	20	17	18	17	16	1750	2180	481	8130	8830	130	136
15	21	18	17	17	16	1170	2150	320	4980	6550	128	137
16	20	21	18	17	16	824	2120	320	3730	8280	128	137
17	16	18	18	17	17	544	1720	320	3600	8490	132	137
18	16	16	18	18	17	560	1320	241	3490	8750	130	138
19	16	16	18	20	20	606	1090	134	2910	6490	132	135
20	16	16	18	23	25	1490	830	173	2230	6660	132	121
21	17	16	17	25	37	2290	830	144	2200	2570	133	135
22	17	18	17	25	151	2340	835	140	2360	2560	131	138
23	18	18	17	22	754	2390	846	139	2360	2530	130	140
24	17	16	17	19	1960	3330	846	367	2270	2500	128	140
25	17	22	17	18	2110	4480	840	842	2170	2410	137	140
26	17	25	17	18	2250	4640	832	837	3010	2420	137	140
27	17	19	16	18	2290	4810	834	830	4290	2470	132	130
28	17	18	17	18	2340	4810	830	824	2640	2440	133	71
29	19	18	17	18	---	4640	830	812	902	2410	134	66
30	18	18	17	17	---	4050	822	485	913	2340	131	65
31	18	---	15	16	---	3440	---	136	---	2310	130	---
TOTAL	747	568	534	564	12234	95804	44785	17296	86237	126624	18184	3861
MEAN	24.1	18.9	17.2	18.2	437	3090	1493	558	2875	4085	587	129
MAX	49	26	19	25	2340	4810	3420	842	10400	8830	2270	142
MIN	16	16	13	16	16	544	822	134	135	292	128	65
AC-FT	1480	1130	1060	1120	24270	190000	88830	34310	171100	251200	36070	7660

CAL YR 1978 TOTAL 321797 MEAN 882 MAX 6740 MIN 13 AC-FT 638300
WTR YR 1979 TOTAL 407438 MEAN 1116 MAX 10400 MIN 13 AC-FT 808200

07183000 NEOSHO RIVER NEAR IOLA, KS

LOCATION.--Lat 37°53'27", long 95°25'50", in SW¼NE¼NE¼ sec.9, T.25 S., R.18 E., Allen County, Hydrologic Unit 11070204, on left bank, 1.0 mi (1.6 km) downstream from Elm Creek, 3.0 mi (4.8 km) southwest of Iola, and at mile 284.4 (457.6 km).

DRAINAGE AREA.--3,818 mi^2 (9,889 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1895 to December 1903 (published as "at Iola"), October 1917 to current year. Monthly discharge only for some periods, published in WSP 1311. Figures of daily discharge for August 1895 to January 1898, published in previous reports, have been found to be unreliable and should not be used.

REVISED RECORDS.--WSP 1037: 1918-24, 1926-29, 1935(M). WSP 1117: Drainage area. WSP 1311: 1895-98. WSP 1391: 1896(M), 1899, 1901-2(M), 1903-4. See also PERIOD OF RECORD.

GAGE.-Water-stage recorder. Datum of gage is 914.77 ft (278.822 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Oct. 1, 1917, nonrecording gage at tailgate of flume at milldam, 4.8 mi (7.7 km) upstream at datum 12.2 ft (3.72 m) higher.

REMARKS.--Records good except those for period of no gage-height record, Mar. 12 to Apr. 15, which are poor. Considerable regulation since 1963 by John Redmond Reservoir 59.3 mi (95.4 km) upstream (see sta 07182450).

AVERAGE DISCHARGE.--70 years, 1,716 ft^3/s (48.60 m^3/s), 1,243,000 acre-ft/yr (1.53 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 436,000 ft^3/s (12,300 m^3/s) July 13, 1951, gage height, 43.0 ft (13.11 m), from floodmark, from rating curve extended above 84,000 ft^3/s (2,380 m^3/s) on basis of slope-area measurement of peak flow; no flow at times in 1936, 1956.

Maximum stage known since at least 1855, 43.0 ft (13.11 m) July 13, 1951, from information by local newspaper.

EXTREMES FOR CURRENT YEAR.--Peak discharges above regulated base of 10,000 ft^3/s (283 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
June 10	0500	21,400	606	21.06	6.419	June 29	0400	12,600	357	14.90	4.542
June 13	0300	10,900	309	13.58	4.139	July 6	0300	*24,600	697	23.09	7.038
June 23	2100	10,600	300	13.42	4.090	July 9	2000	18,700	530	19.27	5.873

Minimum discharge, 16 ft^3/s (0.453 m^3/s) Dec. 28, 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	60	19	27	19	41	4530	3500	840	344	1440	2780	169
2	60	21	26	22	38	4090	3500	854	234	1240	2440	175
3	56	20	26	24	36	7300	3500	1030	199	1110	2670	172
4	50	21	24	25	34	6500	3400	979	175	1040	2650	167
5	49	20	25	26	33	4870	2500	972	172	7520	2320	167
6	41	47	25	25	32	4680	1500	921	161	23700	2210	169
7	39	27	23	26	31	4570	1500	887	169	23800	2110	167
8	38	23	24	23	30	4320	1500	872	7730	9670	989	161
9	37	23	22	23	30	4040	1500	769	19800	14500	426	160
10	36	23	21	23	29	3810	1500	677	19100	14400	396	156
11	35	23	21	23	29	3560	1500	665	7810	7160	343	155
12	36	24	20	23	30	3300	1500	655	9920	8630	206	154
13	36	27	20	27	29	3100	1500	653	10700	8840	178	150
14	31	27	19	22	29	2800	2000	649	10000	8980	173	147
15	29	27	20	22	35	2500	2250	490	7140	8850	167	149
16	26	31	20	23	40	1500	2200	350	4550	8560	167	149
17	24	37	20	23	49	1000	2140	350	3860	8280	166	149
18	25	29	20	31	58	760	1640	350	3710	8730	164	151
19	25	29	20	53	61	800	1450	300	3530	8750	160	150
20	24	27	21	48	94	900	1110	850	2680	8430	156	149
21	23	22	20	54	779	1600	914	1240	2230	5100	155	147
22	23	22	20	69	3500	2500	901	722	8240	2730	156	130
23	31	26	20	93	8180	2800	890	330	8360	2650	162	141
24	22	23	20	91	5040	2600	888	200	7290	2610	152	145
25	21	31	18	84	3600	3500	879	380	3150	6780	155	147
26	22	78	19	79	3000	4600	872	849	2460	4210	170	146
27	21	69	18	67	2500	4800	873	853	3760	2820	183	144
28	19	51	18	58	3000	5000	863	873	6750	2640	188	144
29	21	40	17	49	---	5000	867	862	9800	2540	262	115
30	22	32	17	45	---	4800	852	868	2130	2530	194	81
31	21	---	18	43	---	4400	---	606	---	3570	178	---
TOTAL	1003	919	649	1263	31187	110550	49989	21896	160214	221810	22826	4506
MEAN	32.4	30.6	20.9	40.7	1114	3566	1666	706	5340	7155	736	150
MAX	60	78	27	93	8180	7300	3500	1240	19800	23800	2780	175
MIN	19	19	17	19	29	700	852	200	161	1040	152	81
AC-FT	1990	1820	1290	2510	61860	219300	99150	43430	317800	440000	45280	8940

CAL YR 1978 TOTAL 419786 MEAN 1150 MAX 14100 MIN 17 AC-FT 832600
WTR YR 1979 TOTAL 626812 MEAN 1717 MAX 23800 MIN 17 AC-FT 1243000

07183500 NEOSHO RIVER NEAR PARSONS, KS
(National stream-quality accounting network station)

LOCATION.--Lat 37°18'39", long 95°06'37", in NW¼NE¼ sec.33, T.31 S., R.21 E., Labette County, Hydrologic Unit 11070205, on right bank 150 ft (46 m) downstream from dam of Kansas Army Ammunition Plant, 8.0 mi (13.0 km) southeast of Parsons, and at mile 201.4 (324.1 km).

DRAINAGE AREA.--4,905 mi^2 (12,704 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1921 to current year. Monthly discharge only October 1921, published in WSP 1311.

REVISED RECORDS.--WSP 807: 1922-23. WSP 1391: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 810.25 ft (246.964 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Oct. 1, 1929, nonrecording gage at bridge 2.2 mi (3.5 km) upstream at datum 0.04 ft (0.012 m) lower. Oct. 1, 1929, to Feb. 7, 1935, nonrecording gage, and Feb. 8, 1935, to Dec. 7, 1966, water-stage recorder at bridge 2.7 mi (4.3 km) upstream at present datum.

REMARKS.--Records good except those for July and August, which are fair. Flow moderately regulated by John Redmond Reservoir 142.3 mi (229.0 km) upstream since 1963 (see sta 07182450). Small diversion by the Kansas Army Ammunition Plant.

AVERAGE DISCHARGE.--58 years, 2,354 ft^3/s (72.33 m^3/s), 1,850,000 acre-ft/yr (2.28 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 410,000 ft^3/s (11,600 m^3/s) July 14, 1951, gage height, 40.20 ft (12.25 m), from floodmark in gage well at site 2.7 mi (4.3 km) upstream; no flow at times in 1934, 1936, 1939, 1955-57.

EXTREMES FOR CURRENT YEAR.--Peak discharges above regulated base of 15,000 ft^3/s (425 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 23	2300	15,100	428	14.99	4.569	June 24	1400	17,200	487	16.34	4.980
May 20	1400	15,300	433	15.12	4.609	June 29	1900	17,800	504	16.70	5.090
June 11	2000	23,100	654	19.57	5.965	July 9	1100	*24,100	683	20.04	6.108

Minimum discharge, 16 ft^3/s (0.453 m^3/s) Nov. 6, 8, 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	18	81	33	110	7540	4480	1020	933	3880	6190	263
2	30	18	69	29	114	6200	4730	1040	582	2100	4440	206
3	32	18	58	30	102	7770	5070	1400	377	1660	2940	199
4	34	17	51	32	90	11400	4490	1860	280	1430	2980	205
5	38	17	45	33	84	8200	4720	1570	243	1450	2900	200
6	38	17	40	34	84	5620	4070	1300	217	10900	2500	188
7	37	18	37	34	80	5210	2650	1180	207	19700	2340	177
8	34	16	34	34	79	5010	2130	1090	1510	22700	2250	169
9	34	18	31	34	69	4710	1930	1050	11900	23100	1350	163
10	33	26	31	34	70	4430	1840	987	20000	17800	676	159
11	31	33	30	34	70	4200	6660	865	22500	18700	506	156
12	30	34	30	34	70	3940	9660	821	19700	13100	472	154
13	28	33	30	34	70	3580	4780	799	11500	9160	385	149
14	27	38	29	34	76	3290	2860	791	11300	9070	270	143
15	26	45	28	34	244	2910	2680	786	10400	9060	231	142
16	25	48	29	34	452	2000	2790	733	7480	8890	205	135
17	25	55	28	35	687	1500	2670	515	4940	8530	201	133
18	24	53	26	49	572	2830	2550	421	4230	8310	197	134
19	23	51	26	1250	341	6100	2080	419	4040	8680	189	136
20	22	48	28	2470	656	3360	1730	9990	3810	8740	185	137
21	21	46	29	1640	2940	2180	1510	6530	3030	8330	177	142
22	20	43	29	971	8000	2480	1210	2800	2510	5400	177	138
23	21	42	30	730	13700	4900	1150	1510	4270	3120	173	138
24	20	40	30	488	13200	6570	1140	880	15900	2880	211	133
25	19	43	28	442	6970	6100	1110	581	9880	2950	258	133
26	19	149	28	330	4300	5530	1080	417	4110	6770	221	139
27	18	346	28	243	3630	5390	1060	851	3010	4780	226	141
28	18	196	26	190	4350	5350	1060	1030	4560	3140	459	139
29	18	135	27	160	---	5350	1040	1030	15700	2880	620	138
30	18	99	28	151	---	5260	1030	1030	13700	2740	524	134
31	18	---	31	120	---	5130	---	1030	---	3490	381	---
TOTAL	811	1760	1075	9800	61210	154040	85960	46326	212819	253440	34834	4723
MEAN	26.2	58.7	34.7	316	2186	4969	2865	1494	7094	8175	1124	157
MAX	38	346	81	2470	13700	11400	9660	9990	22500	23100	6190	263
MIN	18	16	26	29	69	1500	1030	417	207	1430	173	133
AC-FT	1610	3490	2130	19440	121400	305500	170500	91890	422100	502700	69090	9370

CAL YR 1978 TOTAL 599865 MEAN 1643 MAX 24700 MIN 16 AC-FT 1190000
WTR YR 1979 TOTAL 866798 MEAN 2375 MAX 23100 MIN 16 AC-FT 1719000

07183500 NEOSHO RIVER NEAR PARSONS, KS--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1962 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1964 to September 1968.
WATER TEMPERATURES: October 1963 to September 1968.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)
MAR 28...	5120	367	8.0	12.0	230	9.3	410	1500	160	60	49	9.2
APR 17...	2450	409	7.6	16.5	100	10.1	280	160	180	54	57	10
MAY 22...	3000	240	7.6	23.0	250	7.6	K7200	4200	94	26	32	3.3
JUN 21...	2850	345	7.8	25.0	140	7.7	--	--	140	35	43	9.1
JUL 24...	3000	350	8.1	26.0	70	7.3	K80	K50	140	11	43	8.1
AUG 28...	430	430	8.3	25.0	19	8.8	200	270	200	38	61	11
SEP 25...	170	480	7.9	23.0	8.8	8.4	--	--	220	43	68	13

DATE	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	PHYTOPLANKTON, TOTAL (CELLS PER ML)
MAR 28...	--	--	4.0	100	45	13	.3	7.4	212	.29	2930	--
APR 17...	14	.5	3.5	--	54	12	.3	7.1	248	.34	1640	--
MAY 22...	9.5	.4	3.9	68	33	10	.4	7.7	156	.21	1260	460
JUN 21...	11	.4	4.4	110	42	9.0	.3	8.8	208	.28	1600	9400
JUL 24...	9.9	.4	4.0	130	28	8.8	.3	11	203	.28	1640	2000
AUG 28...	14	.4	4.0	160	39	14	.4	6.9	251	.34	291	--
SEP 25...	18	.5	4.3	180	52	19	.4	6.4	294	.40	135	--

K RESULTS BASED ON COLONY COUNT OUTSIDE THE ACCEPTABLE RANGE (NON-IDEAL COLONY COUNT).

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	NITROGEN, DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, DISSOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)
MAR 28...	--	1.6	--	.36	1.7	.68	3.3	.18	.08	16	--	--
APR 17...	--	1.4	--	.07	1.1	1.3	2.5	.24	.13	15	--	--
MAY 22...	--	.94	--	.23	2.4	.73	3.3	.41	.09	--	8.4	13
JUN 21...	--	.98	--	.02	1.1	.01	2.1	.27	.25	12	--	--
JUL 24...	--	.70	--	.04	.98	.57	1.7	.23	.13	4.5	--	--
AUG 28...	--	.01	--	.01	.80	.16	.81	.07	.05	--	6.6	1.2
SEP 25...	.62	.02	.04	.02	.66	.58	.68	.19	.14	5.3	--	--

07183500 NEOSHO RIVER NEAR PARSONS, KS--Continued
(National stream-quality accounting network station)

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BARIUM, SUS-PENDED RECOV-ERABLE (UG/L AS BA)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM SUS-PENDED RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, SUS-PENDED RECOV. (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)
MAY 22...	5	4	300	100	200	0	0	0	20	20	0	20
AUG 28...	5	5	200	100	100	1	1	0	40	0	120	0

DATE	COBALT, SUS-PENDED RECOV-ERABLE (UG/L AS CO)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, SUS-PENDED RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)
MAY 22...	20	0	20	18	2	15000	30	80	0	440	0	.3
AUG 28...	0	0	3	1	2	950	10	5	0	130	10	.2

DATE	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, SUS-PENDED TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, SUS-PENDED RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)
MAY 22...	.0	.3	1	0	1	70	10	60	0	0	0
AUG 28...	.1	.1	0	0	0	0	0	10	0	0	0

07183500 NEOSHO RIVER NEAR PARSONS, KS--Continued
(National stream-quality accounting network station)

PHYTOPLANKTON ANALYSES, JUNE 1978 TO JULY 1979

DATE	MAY 22,79	JUN 21,79	JUL 24,79
TIME	1100	1430	1200
TOTAL CELLS/ML	460	9400	2000
DIVERSITY: DIVISION	0.0	0.7	1.1
.CLASS	0.0	0.7	1.1
..ORDER	0.8	0.7	1.2
...FAMILY	0.8	0.7	1.2
....GENUS	1.5	0.9	1.2

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)						
.CHLOROPHYCEAE						
..CHLOROCOCCALES						
...OOCYSTACEAE						
....ANKISTRODESMUS	--	-	--	-	13	1
...SCENEDESMACEAE						
....CRUCIGENIA	--	-	1000	11	--	-
....SCENEDESMUS	--	-	520	6	26	1
..VOLVOCALES						
...VOLVOCACEAE						
....PANDORINA	--	-	--	-	210	11
CHRYSOPHYTA						
.BACILLARIOPHYCEAE						
..CENTRALES						
...COSCINODISCACEAE						
....CYCLOTELLA	120#	25	--	-	77	4
....MELOSIRA	230#	50	--	-	--	-
..PENNALES						
...NITZSCHIACEAE						
....NITZSCHIA	120#	25	65	1	26	1
CRYPTOPHYTA (CRYPTOMONADS)						
.CRYPTOPHYCEAE						
..CRYPTOMONADALES						
...CRYPTOMONADACEAE						
....CRYPTOMONAS	--	-	--	-	13	1
CYANOPHYTA (BLUE-GREEN ALGAE)						
.CYANOPHYCEAE						
..HORMOGONALES						
...OSCILLATORIACEAE						
....OSCILLATORIA	--	-	7800#	83	1500#	79
EUGLENOPHYTA (EUGLENOIDS)						
.EUGLENOPHYCEAE						
..EUGLENALES						
...EUGLENACEAE						
....TRACHELOMONAS	--	-	--	-	51	3

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

07183500 NEOSHO RIVER NEAR PARSONS, KS--Continued
(National stream-quality accounting network station)

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)
OCT					
03...	1715	33	520	36	3.3
NOV					
15...	1610	46	580	29	3.6
MAR					
07...	0910	4980	370	208	2800
28...	1230	5120	367	493	6820
APR					
17...	0925	4800	330	324	4200
17...	1130	2450	409	200	1320
MAY					
09...	0930	1040	425	79	222
JUN					
06...	0810	219	--	31	18
JUL					
11...	0920	20000	140	712	38400
SEP					
19...	0830	134	429	19	6.9

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	SEDIMENT, SUSPENDED (MG/L)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM
JUL							
11...	0920	712	59	69	85	99	100

07184000 LIGHTNING CREEK NEAR MCCUNE, KS

LOCATION.--Lat 37°16'54", long 95°01'56", in NE¼NE¼ sec.7, T.32 S., R.22 E., Cherokee County, Hydrologic Unit 11070205, at downstream side of highway bridge, 5.0 mi (8.0 km) south of McCune, 13.0 mi (20.9 km) southeast of Parsons, and at mile 12.6 (20.3 km).

DRAINAGE AREA.--197 mi^2 (510 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1938 to September 1946, October 1959 to current year.

GAGE.--Water-stage recorder. Datum of gage is 818.10 ft (249.357 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Mar. 10, 1945, nonrecording gage and Mar. 10, 1945, to Sept. 30, 1946, water-stage recorder at present site and datum. Oct. 1, 1959, to May 26, 1960, water-stage recorder 100 ft (30 m) downstream at present datum.

REMARKS.--Records excellent.

AVERAGE DISCHARGE.--28 years, 143 ft^3/s (4.050 m^3/s), 103,600 acre-ft/yr (128 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 23,000 ft^3/s (651 m^3/s) May 19, 1943, gage height, 17.81 ft (5.428 m), from rating curve extended above 15,000 ft^3/s (425 m^3/s); no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,800 ft^3/s (51.0 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 23	1600	1,990	56.4	11.81	3.600	May 21	0100	* 7,250	205	16.35	4.983
Mar. 19	1100	1,840	52.1	11.18	3.408	June 9	2400	2,200	62.3	12.65	3.856

Minimum discharge, no flow Oct. 16 to Nov. 14 and Sept. 23-30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.30	.00	15	.90	17	595	37	5.7	15	86	7.3	9.1
2	.28	.00	11	1.0	14	210	53	6.4	13	42	20	5.6
3	.20	.00	7.6	1.1	13	463	43	250	13	29	11	3.8
4	.15	.00	5.7	1.0	12	527	39	916	12	19	5.2	2.8
5	.14	.00	4.4	.91	9.8	144	40	328	11	13	3.1	2.0
6	.11	.00	3.5	.88	7.4	75	38	99	9.8	11	2.1	1.4
7	.09	.00	2.8	.82	6.8	54	30	57	15	13	1.4	.84
8	.08	.00	3.0	.87	6.5	43	24	39	447	13	.93	.58
9	.06	.00	3.0	1.0	6.0	36	20	27	1990	122	.62	.37
10	.05	.00	2.6	1.0	5.2	31	20	20	2100	60	.54	.26
11	.04	.00	2.4	1.1	4.9	25	920	19	796	32	11	.17
12	.04	.00	2.0	1.1	5.7	21	918	25	162	18	33	.12
13	.03	.00	2.0	1.3	6.5	19	177	21	92	11	11	.09
14	.02	.00	2.2	1.4	12	16	70	17	62	6.4	4.6	.06
15	.01	.02	2.3	1.4	187	14	47	13	45	4.3	3.0	.05
16	.00	.03	2.2	1.5	502	12	35	10	34	3.1	2.4	.04
17	.00	.04	2.0	1.5	522	11	27	7.5	25	2.4	2.0	.03
18	.00	.04	2.0	16	370	324	23	5.9	19	2.1	1.6	.03
19	.00	.32	2.3	1170	185	1660	20	5.5	15	1.7	1.6	.02
20	.00	.79	2.2	1090	296	524	18	2830	14	1.4	2.3	.02
21	.00	.71	1.7	751	1390	129	16	4690	10	1.2	1.8	.01
22	.00	.70	1.9	460	1600	143	14	942	7.4	.95	1.2	.01
23	.00	.65	1.9	278	1750	1240	13	142	7.1	.83	1.2	.00
24	.00	.46	1.4	190	672	498	12	91	12	.66	52	.00
25	.00	.66	1.2	130	154	143	12	67	20	.51	14	.00
26	.00	50	1.2	82	80	79	11	52	38	.39	5.4	.00
27	.00	161	1.2	51	63	56	9.0	42	20	10	3.5	.00
28	.00	86	1.1	38	162	45	7.9	32	15	8.4	2.6	.00
29	.00	36	1.1	29	---	38	6.8	23	881	3.9	37	.00
30	.00	21	1.1	22	---	35	6.1	21	386	2.9	28	.00
31	.00	---	1.0	19	---	33	---	17	---	5.2	19	---
TOTAL	1.60	358.42	95.0	4344.78	8059.8	7243	2706.8	10821.0	7286.3	525.34	290.39	27.40
MEAN	.052	11.9	3.06	140	288	234	90.2	349	243	16.9	9.37	.91
MAX	.30	161	15	1170	1750	1660	920	4690	2100	122	52	9.1
MIN	.00	.00	1.0	.82	4.9	11	6.1	5.5	7.1	.39	.54	.00
AC-FT	3.2	711	188	8620	15990	14370	5370	21460	14450	1040	576	54

CAL YR 1978 TOTAL 31779.80 MEAN 87.1 MAX 2320 MIN .00 AC-FT 63040
WTR YR 1979 TOTAL 41759.83 MEAN 114 MAX 4690 MIN .00 AC-FT 82830

07184000 LIGHTNING CREEK NEAR MCCUNE, KS--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, CHEMICAL (LOW LEVEL) (MG/L)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)
JAN 04...	1.0	1090	7.6	.5	9.2	--	530	380
FEB 13...	7.3	890	6.7	1.0	9.0	--	420	280
MAY 16...	11	870	7.7	19.0	5.7	13	390	230
JUN 20...	15	745	5.9	25.0	5.1	19	320	180
AUG 14...	5.3	553	7.8	23.5	3.9	17	230	120

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
JAN 04...	110	62	39	.7	6.0	148	430	10	.6
FEB 13...	99	42	30	.6	5.0	139	300	21	.5
MAY 16...	100	34	--	--	--	156	260	13	.5
JUN 20...	80	28	21	.5	3.8	139	210	10	.5
AUG 14...	58	20	20	.6	4.0	107	140	16	.4

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)
JAN 04...	7.0	753	1.02	2.03	.22	.05	.00	.00
FEB 13...	8.0	569	.80	11.6	.37	.09	.02	.06
MAY 16...	8.0	510	.69	15.1	.21	.10	.02	.06
JUN 20...	11	450	.61	18.2	.21	.13	.01	.03
AUG 14...	6.0	330	.45	4.72	.23	.22	.02	.06

07184000 LIGHTNING CREEK NEAR MCCUNE, KS--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)
JAN 04...	200	0	0	--	--	0	0	10	0
FEB 13...	300	100	0	0	0	30	20	10	10
MAY 16...	1300	0	--	0	0	0	0	200	10
JUN 20...	0	0	0	0	--	0	0	10	10
AUG 14...	1500	100	0	20	--	0	0	0	0

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
JAN 04...	430	40	--	--	640	410	.0	10	0
FEB 13...	370	50	--	0	210	210	.0	0	0
MAY 16...	1000	30	0	0	560	470	2.0	2900	10
JUN 20...	1800	10	0	--	340	230	1.0	20	10
AUG 14...	3300	40	0	--	360	230	1.0	50	50

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)
MAR 07...	1240	55	--	66	9.9
APR 11...	1055	955	475	584	1510
11...	1115	990	460	829	2220
MAY 09...	1255	26	620	67	4.8
30...	1255	21	--	57	3.3
JUL 11...	1315	30	--	283	23

07184060 DEER CREEK NEAR WEST MINERAL, KS

LOCATION.--Lat 37°15'37", long 94°57'31", in SE¼SE¼NE¼ sec.14, T.32 S., R.22 E., Cherokee County, at downstream side of county road bridge, 2.5 mi (4.0 km) southwest of West Mineral.

DRAINAGE AREA.--1.5 mi^2 (3.9 km^2).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, CHEM-ICAL (LOW LEVEL) (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)
OCT 17...	.08	3600	7.7	17.0	--	--	1800	1600
NOV 14...	.08	4150	8.1	9.5	--	--	1900	1600
JAN 03...	.10	4400	7.9	.5	9.0	--	2000	1700
FEB 13...	.45	4280	8.1	1.0	19.5	--	1900	1600
MAY 16...	.57	3710	8.1	20.0	7.7	8	1700	1400
JUN 20...	.59	3190	7.9	30.0	8.2	13	1400	1200
AUG 14...	.12	3350	8.1	29.0	8.3	17	1500	1300

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 17...	370	220	380	3.9	17	246	2200	16	--
NOV 14...	380	230	410	4.1	17	295	2300	15	.9
JAN 03...	400	240	440	4.3	14	271	2400	16	1.3
FEB 13...	380	220	390	3.9	15	303	2300	17	1.2
MAY 16...	340	200	--	--	--	262	2200	13	1.2
JUN 20...	290	180	290	3.3	12	213	1820	12	1.1
AUG 14...	300	190	320	3.6	14	164	2000	12	1.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)
OCT 17...	4.3	3360	4.57	.73	.00	.01	.00	.00
NOV 14...	4.8	3540	4.81	.76	.11	.01	.00	.00
JAN 03...	6.0	3680	5.00	.99	.01	.00	.00	.00
FEB 13...	5.0	3510	4.77	4.26	.08	.02	.01	.03
MAY 16...	5.0	2920	3.97	4.49	.46	.02	.00	.00
JUN 20...	3.0	2740	3.73	4.36	.17	.02	.00	.00
AUG 14...	2.0	2940	4.00	.95	.39	.01	.00	.00

07184060 DEER CREEK NEAR WEST MINERAL, KS--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)
OCT 17...	300	0	10	10	10	10	10	10	10
NOV 14...	500	0	0	--	--	10	10	20	20
JAN 03...	100	0	0	--	--	0	0	20	20
FEB 13...	200	100	0	--	--	60	40	20	20
MAY 16...	800	0	--	10	10	10	10	10	10
JUN 20...	0	0	0	0	--	0	0	10	10
AUG 14...	300	0	10	0	--	0	0	10	10

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
OCT 17...	620	50	10	--	1700	1600	.0	30	30
NOV 14...	710	30	--	--	1600	1400	.0	20	20
JAN 03...	490	40	--	--	1800	1800	.0	20	20
FEB 13...	320	50	--	--	1200	1100	.0	20	10
MAY 16...	750	40	100	100	530	350	.6	20	10
JUN 20...	470	20	0	--	180	50	1.0	30	30
AUG 14...	410	20	0	--	280	160	.5	10	10

07184070 DEER CREEK NEAR HALLOWELL, KS

LOCATION.--Lat 37°13'50", long 94°59'41", in NE¼NE¼SE¼ sec.28, T.32 S., R.22 E., Cherokee County, at downstream side of county road bridge, 3.6 mi (5.8 km) north of Hallowell.

DRAINAGE AREA.--7.0 mi² (18.1 km²).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: March 1977 to September 1978.
WATER TEMPERATURE: March 1977 to July 1979.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 3,930 micromhos Apr. 12, 13, 1977; minimum, 1,240 micromhos May 28, 1977.
WATER TEMPERATURES: Maximum, 31.0°C June 29, 1979; minimum 0.0°C on several days during winter period.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum daily, 31.0°C June 29; minimum daily, 0.5°C Feb. 12.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, CHEM-ICAL (LOW LEVEL) (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)
OCT 17...	.03	3500	7.6	16.0	--	--	2400	2200
NOV 14...	.04	3500	8.0	9.5	--	--	2400	2200
JAN 04...	.46	4000	8.1	.5	13.5	--	2100	1900
FEB 14...	2.1	3300	6.9	1.0	13.6	--	1800	1600
MAR 19...	20	2450	7.9	14.0	10.3	--	1100	950
MAY 16...	2.5	3420	7.9	25.0	7.8	3	1800	1600
JUN 21...	2.3	3020	7.7	29.0	8.6	13	1700	1500
AUG 14...	.25	3300	8.2	29.5	9.7	17	1600	1400

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 17...	420	340	190	1.7	14	172	2500	16	--
NOV 14...	430	320	210	1.9	13	172	2600	17	.9
JAN 04...	420	250	290	2.8	11	230	2300	18	1.2
FEB 14...	340	220	190	2.0	10	189	1900	15	1.2
MAR 19...	230	140	160	2.1	8.0	148	1200	24	.8
MAY 16...	350	230	--	--	--	180	2040	15	1.2
JUN 21...	310	220	190	2.0	10	172	1880	13	1.1
AUG 14...	330	200	270	2.9	12	180	2000	14	1.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SULIDS, DIS-SOLVED (TUNS PER DAY)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)
OCT 17...	5.8	3590	4.88	.29	.22	.01	.00	.00
NOV 14...	5.8	3600	4.90	.39	.00	.01	.00	.00
JAN 04...	5.0	3430	4.66	4.26	.26	.01	.00	.00
FEB 14...	4.0	2790	3.79	15.8	.09	.02	.00	.00
MAR 19...	2.3	1850	2.52	99.9	.23	.07	.00	.00
MAY 16...	4.0	2760	3.75	18.6	.55	.02	.00	.00
JUN 21...	5.0	2740	3.73	17.0	.36	.02	.00	.00
AUG 14...	6.0	2940	4.00	1.98	.44	.03	.00	.00

07184070 DEER CREEK NEAR HALLOWELL, KS--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)
OCT									
17...	100	0	10	--	--	20	20	10	10
NOV									
14...	0	0	0	--	--	20	20	20	20
JAN									
04...	400	0	0	--	--	10	10	10	0
FEB									
14...	200	100	0	--	--	0	0	10	10
MAR									
19...	0	0	0	10	10	0	0	10	10
APR									
11...	1700	0	0	10	0	0	0	10	0
MAY									
16...	1400	100	--	10	10	0	0	10	10
JUN									
21...	100	100	0	0	--	0	0	10	10
AUG									
14...	300	100	0	0	--	0	0	10	10

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
OCT									
17...	160	40	--	--	840	770	.0	10	10
NOV									
14...	210	30	--	--	560	560	.0	10	10
JAN									
04...	430	40	--	--	630	600	.0	10	10
FEB									
14...	210	30	--	--	470	470	.0	20	10
MAR									
19...	2000	40	0	0	900	700	.5	20	20
APR									
11...	1100	30	100	100	790	560	.0	80	20
MAY									
16...	910	40	100	100	620	400	.4	30	10
JUN									
21...	420	20	0	--	350	220	1.0	20	10
AUG									
14...	320	20	0	--	220	160	1.0	20	20

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)
MAR					
19...	1650	20	2450	110	5.9
APR					
11...	1430	38	2750	114	12

07184070 DEER CREEK NEAR HALLOWELL, KS--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3400	2930			---	---	---	2910	---	---		
2	3110	2900			---	---	---	2910	---	2830		
3	3120	2880			---	---	---	---	---	2830		
4	3000	2900			---	---	---	---	---	2890		
5	2900	2930			---	---	---	---	---	3080		
6	3000	2800			---	---	---	---	---	3080		
7	3260	2640			---	---	---	---	---	2520		
8	3050	2670			---	---	---	---	---	1770		
9	2530	2650			---	---	---	---	---	1200		
10	2670	2650			---	---	---	---	---	---		
11	2740	2700			---	---	2800	---	---	---		
12	2730	2660			---	---	---	---	---	---		
13	3360	2650			---	2590	2670	---	---	2950		
14	3660	2920			2790	2560	2700	---	---	3100		
15	3670	3030			---	2440	2570	---	---	2770		
16	3780	---			---	2470	2430	3420	---	1190		
17	3700	---			---	2590	2350	---	---	330		
18	3510	---			2690	2510	2430	---	---	1100		
19	3280	---			---	2450	2470	---	---	856		
20	3110	---			---	---	2630	---	---	3380		
21	2930	---			---	2490	2760	---	2970	---		
22	2670	---			---	2790	2830	---	2970	---		
23	2770	---			---	---	2870	---	2970	---		
24	2760	---			---	---	2940	---	2980	---		
25	2710	---			---	---	2940	---	2860	---		
26	2950	---			---	---	2940	---	2950	---		
27	2950	---			---	---	---	---	3000	---		
28	2970	---			---	---	---	---	2930	---		
29	2960	---			---	---	---	---	3060	---		
30	2970	---			---	---	---	---	---	---		
31	2950	---			---	---	---	---	---	3300		

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.0	15.0	9.0	1.5	2.5	6.5	13.5	22.5	22.5	29.0		
2	20.0	15.0	10.5	2.0	2.0	8.0	12.5	22.5	22.0	30.0		
3	20.0	16.5	7.5	1.5	2.0	9.0	11.0	20.5	22.0	29.5		
4	17.5	17.5	5.0	2.0	2.0	6.0	11.0	20.0	22.5	30.0		
5	17.0	17.0	5.5	2.0	2.5	6.0	12.5	21.5	23.0	30.5		
6	14.5	13.0	4.0	2.0	2.5	7.0	13.0	22.5	24.0	30.0		
7	14.0	12.0	2.0	2.0	2.0	8.5	13.0	24.0	24.5	29.5		
8	15.0	12.0	2.0	3.0	2.5	7.5	13.5	25.5	25.0	28.5		
9	15.0	12.5	2.0	3.0	2.5	8.0	14.5	26.5	25.5	28.0		
10	16.5	13.5	2.5	3.5	2.5	8.0	15.5	26.0	24.5	29.5		
11	19.0	13.5	3.5	3.0	1.5	9.0	16.0	23.0	23.5	29.0		
12	19.5	13.0	4.0	2.5	.5	11.0	17.5	23.5	23.0	30.0		
13	15.0	15.5	4.0	2.5	1.0	12.0	18.5	25.0	23.5	30.0		
14	12.5	10.5	3.5	1.5	1.5	10.5	19.5	26.0	24.0	30.5		
15	12.5	9.0	5.0	2.0	2.5	10.5	21.0	25.5	24.5	30.5		
16	12.0	9.5	4.5	1.5	2.0	11.5	22.0	26.0	24.5	30.0		
17	13.0	8.5	3.5	2.0	2.0	12.0	23.5	25.0	24.5	29.5		
18	15.5	9.0	6.0	2.0	3.5	13.5	22.5	25.0	25.0	29.0		
19	16.0	8.0	10.5	2.0	4.0	13.5	23.0	24.5	26.5	28.5		
20	16.5	7.5	9.0	2.0	3.0	14.0	24.0	23.5	28.0	29.0		
21	17.0	6.5	5.5	2.5	3.5	14.5	23.5	22.5	29.0	28.0		
22	17.5	7.5	5.0	3.0	4.0	14.0	23.5	22.0	28.0	27.5		
23	15.5	10.0	6.0	2.0	4.5	12.0	23.0	21.5	27.0	27.5		
24	14.5	9.5	4.5	2.5	4.0	10.5	23.0	21.5	26.5	27.5		
25	16.0	10.0	4.0	2.5	4.5	11.0	23.0	21.5	27.5	28.0		
26	14.5	11.0	4.0	2.5	5.0	11.5	22.0	22.0	27.0	28.5		
27	14.0	9.0	3.5	2.0	7.0	11.5	21.0	22.5	26.5	29.0		
28	14.5	7.5	4.5	2.0	7.0	14.5	20.0	23.5	29.5	28.5		
29	15.0	8.0	6.0	2.0	---	16.0	21.0	24.0	31.0	29.0		
30	15.0	9.0	2.5	1.5	---	17.0	22.0	24.5	30.0	30.0		
31	15.0	---	2.0	2.5	---	14.5	---	23.5	---	28.0		

07184080 DEER CREEK NEAR OSWEGO, KS

LOCATION.--Lat 37°12'03", long 95°02'59", in NE¼NE¼SE¼ sec.1, T.33 S., R.21 E., Cherokee County, at downstream side of county road bridge 4.1 mi (6.6 km) northeast of Oswego.

DRAINAGE AREA.--12.0 mi^2 (31.1 km^2).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, CHEM-ICAL (LOW LEVEL) (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)
OCT								
17...	.01	2700	7.6	16.0	--	--	1400	1300
JAN								
03...	.42	3750	7.1	1.0	11.2	--	2000	1800
FEB								
13...	2.8	3350	7.2	1.0	12.3	--	1800	1600
MAY								
16...	E3.5	3150	7.6	24.0	6.8	6	1700	1500
JUN								
20...	4.2	2920	7.4	30.0	7.5	14	1500	1300
AUG								
14...	.14	3100	7.7	26.0	6.4	15	1600	1500

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT									
17...	350	140	150	1.7	9.0	139	1600	13	--
JAN									
03...	420	230	250	2.4	9.0	189	2200	25	1.2
FEB									
13...	340	220	180	1.9	9.0	164	1900	17	.8
MAY									
16...	340	200	--	--	--	164	1900	16	1.2
JUN									
20...	310	190	180	2.0	9.0	156	1730	15	1.1
AUG									
14...	330	180	200	2.2	9.0	139	1800	17	1.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)
OCT								
17...	3.8	2350	3.20	.06	.04	.14	.02	.06
JAN								
03...	6.0	3260	4.43	3.70	.14	.00	.00	.00
FEB								
13...	4.0	2770	3.77	20.9	.13	.01	.00	.00
MAY								
16...	4.0	2560	3.48	--	.27	.03	.00	.00
JUN								
20...	4.0	2540	3.45	28.8	.06	.04	.00	.00
AUG								
14...	5.0	2630	3.58	.99	.28	.02	.00	.00

E ESTIMATED VALUE.

07184080 DEER CREEK NEAR OSWEGO, KS--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)
OCT									
17...	400	100	10	--	--	0	0	10	10
JAN									
03...	100	0	0	--	--	0	0	10	0
FEB									
13...	200	0	0	--	--	20	0	10	10
MAY									
16...	1400	0	--	10	0	0	0	20	10
JUN									
20...	100	100	0	1	--	0	0	10	10
AUG									
14...	200	0	0	1	--	0	0	0	0

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
OCT									
17...	320	40	--	--	90	60	.0	10	10
JAN									
03...	650	70	--	--	1700	1600	.0	50	50
FEB									
13...	330	60	--	--	520	480	.0	70	30
MAY									
16...	1300	20	100	100	1400	1100	.6	40	10
JUN									
20...	1300	20	0	--	460	290	1.0	100	100
AUG									
14...	450	20	0	--	430	390	1.0	10	10

07184100 LIGHTNING CREEK NEAR OSWEGO, KS

LOCATION.--Lat 37°10'49", long 95°04'11", in SE¼SE¼SE¼ sec.11, T.33 S., R.21 E., Cherokee County, on left bank at upstream side of county road bridge 2.4 mi (3.9 km) northeast of Oswego and at mile 0.3 (0.5 km).

DRAINAGE AREA.--250 mi^2 (648 km^2).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: March 1977 to September 1978.
WATER TEMPERATURE: March 1977 to May 1979.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 2,400 micromhos Apr. 15-17, 1977, Feb. 4, 1978; minimum, 128 micromhos Mar. 26, 1978.
WATER TEMPERATURES: Maximum, 32.0°C July 2-9, 1978; minimum, 0.0°C on several days during winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum daily, 26.0°C May 28; minimum daily, 0.5°C Feb. 11.

CHEMICAL ANALYSES, WATER YEAR OCTUBER 1978 TO SEPTEMBER 1979

DATE	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, CHEM-ICAL (LOW LEVEL) (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)
OCT 17...	.16	1150	7.2	11.5	--	--	620	500
NOV 14...	.46	1230	7.5	10.0	--	--	700	560
JAN 03...	3.0	1360	7.8	.5	--	--	770	620
FEB 13...	11	1070	7.2	1.0	11.6	--	480	400
MAY 16...	21	1200	8.0	23.0	9.8	15	540	430
AUG 14...	15	1040	7.9	26.5	7.4	8	490	360

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 17...	140	65	63	1.1	6.0	123	610	12	--
NOV 14...	160	73	69	1.1	7.0	139	650	12	.6
JAN 03...	180	79	85	1.3	6.0	148	770	14	.8
FEB 13...	110	51	49	1.0	6.0	82	450	12	.6
MAY 16...	120	58	--	--	--	115	500	11	.6
AUG 14...	120	46	41	.8	5.0	131	440	10	.6

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)
OCT 17...	6.4	976	1.33	.42	.14	.04	.20	.61
NOV 14...	7.5	979	1.33	1.22	.24	.07	.04	.12
JAN 03...	5.0	1230	1.67	9.96	.20	.02	.00	.00
FEB 13...	5.0	733	1.00	21.8	.30	.08	.06	.18
MAY 16...	6.0	770	1.05	43.7	.28	.05	.00	.00
AUG 14...	7.0	748	1.02	31.3	.12	.05	.01	.03

07184100 LIGHTNING CREEK NEAR OSWEGO, KS--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)
OCT									
17...	300	0	0	0	0	0	0	0	0
NOV									
14...	0	0	0	--	--	0	0	20	20
JAN									
03...	0	0	0	--	--	0	0	10	10
FEB									
13...	800	0	0	--	--	0	0	10	0
APR									
11...	5800	100	0	20	0	0	0	20	0
MAY									
16...	1000	0	--	0	0	0	0	240	10
AUG									
14...	400	0	0	2	--	0	0	10	0

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
OCT									
17...	280	10	0	--	130	70	.0	10	0
NOV									
14...	170	60	--	--	270	270	.0	80	10
JAN									
03...	100	20	--	--	430	380	.0	10	0
FEB									
13...	620	80	--	--	340	330	.0	30	10
APR									
11...	3700	30	0	0	620	440	.0	50	20
MAY									
16...	610	20	0	0	240	120	1.0	1400	10
AUG									
14...	530	20	0	--	220	130	.5	30	30

07184100 LIGHTNING CREEK NEAR OSWEGO, KS--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1100	1410	1270	---	---	308	882	1250	370			
2	1080	1450	---	---	---	205	1010	---	340			
3	1160	1460	---	1360	---	261	866	---	---			
4	1190	1450	---	1400	---	269	860	---	780			
5	1220	1450	---	1310	---	277	956	---	---			
6	1250	1320	---	1260	---	272	911	---	---			
7	1260	1330	---	1190	---	309	1020	---	---			
8	1290	1350	---	1200	---	347	916	---	---			
9	1310	1430	---	1160	---	349	1050	---	---			
10	1340	1450	---	1120	---	419	1110	---	---			
11	1340	1490	---	1060	---	493	894	---	---			
12	1340	1470	---	954	---	561	422	---	---			
13	1370	1410	---	1010	876	580	470	---	---			
14	1390	1490	---	1080	804	589	610	---	---			
15	1370	1270	---	1170	975	656	750	---	---			
16	1360	1170	---	1010	925	769	830	1200	---			
17	1400	1390	---	959	625	576	955	1070	---			
18	1430	1480	---	877	550	370	1010	1180	---			
19	1420	1510	---	870	420	327	1020	1080	---			
20	1430	1380	---	---	407	400	1020	---	---			
21	1410	1350	---	---	389	444	1060	530	---			
22	1400	1220	---	---	146	544	1170	---	---			
23	1350	1210	---	---	113	493	1070	860	---			
24	1350	1330	---	---	138	312	1160	1010	---			
25	1340	1260	---	---	167	357	1260	1040	---			
26	1410	994	---	---	210	425	1290	1080	---			
27	1400	1190	---	---	249	512	1210	1240	---			
28	1410	1080	---	---	283	560	1350	---	---			
29	1390	---	---	---	---	635	1240	1310	---			
30	1360	---	---	---	---	770	1320	---	---			
31	1410	---	---	---	---	894	---	---	---			

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.5	14.0	10.0	2.0	1.5	4.0	14.0	19.5				
2	21.5	14.0	10.5	1.5	1.5	5.0	13.5	19.5				
3	21.0	15.5	9.5	1.0	1.5	6.5	12.0	18.5				
4	19.5	17.0	8.5	2.0	1.5	6.5	11.5	17.5				
5	18.5	17.0	7.5	2.0	1.5	7.0	13.0	18.5				
6	16.5	13.5	6.5	2.0	1.5	7.0	13.5	19.5				
7	15.5	11.5	5.0	2.0	1.5	7.5	14.5	20.5				
8	16.0	11.0	3.5	1.5	1.5	7.5	16.0	21.5				
9	17.0	11.5	2.5	1.5	1.5	7.5	14.5	23.0				
10	18.0	12.5	2.5	1.0	1.0	8.0	14.5	22.5				
11	20.0	13.0	2.5	1.5	.5	8.5	14.5	20.5				
12	21.0	12.5	2.5	2.0	1.0	10.0	14.0	18.0				
13	18.0	14.5	3.0	1.5	1.5	11.5	14.5	18.5				
14	15.0	10.5	3.5	1.5	1.5	11.5	15.5	19.0				
15	14.0	9.0	4.5	2.0	1.5	11.0	17.0	20.0				
16	13.5	9.5	6.0	2.0	1.0	12.0	18.5	20.5				
17	13.5	9.5	7.5	2.0	1.5	13.0	20.0	21.5				
18	14.5	9.5	9.0	2.0	1.5	14.0	20.0	22.0				
19	15.0	9.0	12.5	1.5	1.5	13.0	20.5	22.0				
20	15.0	8.0	8.5	1.5	1.5	14.5	21.5	22.0				
21	16.5	7.0	7.5	2.0	1.5	14.5	21.0	21.5				
22	18.0	7.5	6.0	3.0	1.5	15.0	21.0	21.5				
23	15.5	10.5	6.5	4.0	2.0	14.0	20.5	21.0				
24	14.0	10.5	5.5	3.0	2.0	13.0	20.5	20.5				
25	15.5	10.5	4.0	2.0	2.5	12.0	21.5	21.0				
26	14.0	11.0	3.5	2.5	2.5	12.0	20.5	24.0				
27	12.5	9.5	4.5	2.5	3.5	12.0	19.5	25.0				
28	13.0	8.5	5.5	2.0	4.5	13.5	18.5	26.0				
29	13.5	9.0	7.0	2.0	---	15.0	19.0	24.5				
30	13.5	10.0	5.0	2.0	---	16.0	20.0	23.5				
31	13.5	---	3.0	1.5	---	14.5	---	23.0				

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	SEDI-MENT, SUS-PENDED (MG/L)
APR			
11...	1700	820	314

07184220 CHERRY CREEK NEAR WEST MINERAL, KS

LOCATION.--Lat 37°14'14", long 94°55'04", in NE¼NW¼NW¼ sec.29, T.32 S., R.23 E., Cherokee County, at downstream side of county road bridge, 3.0 mi (4.8 km) south of West Mineral.

DRAINAGE AREA.--27.0 mi^2 (69.9 km^2).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: March 1977 to September 1977.
WATER TEMPERATURE: March 1977 to September 1977.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, CHEMICAL (LOW LEVEL) (MG/L)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)
OCT								
17...	.30	1850	7.8	9.0	--	--	1800	1600
NOV								
14...	.26	2550	7.5	10.0	--	--	1800	1600
JAN								
03...	.37	2340	7.4	.5	--	--	1800	1600
FEB								
13...	1.1	1880	7.5	.5	10.9	--	1100	960
MAY								
16...	3.2	1960	7.6	17.0	5.9	13	1100	970
JUN								
21...	2.6	2290	7.0	24.0	5.0	14	1200	1000
AUG								
15...	.41	2430	7.8	19.5	5.5	8	1400	1200

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT									
17...	410	180	95	1.0	8.0	205	1700	10	--
NOV									
14...	400	190	93	1.0	10	230	1700	10	.9
JAN									
03...	410	180	120	1.2	8.0	205	1700	12	1.2
FEB									
13...	260	110	89	1.2	6.0	139	1100	12	.9
MAY									
16...	250	110	--	--	--	131	1050	9.0	.9
JUN									
21...	270	120	77	1.0	6.0	156	1170	8.0	1.0
AUG									
15...	310	160	96	1.1	7.0	172	1400	9.0	1.1

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)
OCT								
17...	8.6	2530	3.44	2.05	.09	.22	.01	.03
NOV								
14...	12	2560	3.48	1.80	.07	.04	.00	.00
JAN								
03...	10	2560	3.48	2.56	.04	.00	.00	.00
FEB								
13...	8.0	1670	2.27	4.96	.35	.01	.00	.00
MAY								
16...	50	1550	2.11	13.4	.24	.03	.00	.00
JUN								
21...	6.0	1750	2.38	12.3	.22	.04	.00	.00
AUG								
15...	4.0	2090	2.84	2.31	.14	.03	.00	.00

07184220 CHERRY CREEK NEAR WEST MINERAL, KS--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)
OCT 17...	300	0	0	--	--	0	0	10	10
NOV 14...	300	0	0	--	--	0	0	0	0
JAN 03...	0	0	0	--	--	10	0	20	10
FEB 13...	0	0	0	--	--	0	0	10	10
APR 11...	6800	200	0	10	0	0	0	20	0
MAY 16...	1400	0	--	0	0	0	0	10	10
JUN 21...	100	100	0	0	--	0	0	10	10
AUG 15...	300	0	0	0	--	0	0	10	10

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
OCT 17...	230	50	--	--	130	120	.0	70	20
NOV 14...	630	390	--	--	1600	1500	.0	20	20
JAN 03...	150	30	--	--	490	490	.0	20	20
FEB 13...	200	40	--	--	1300	1200	.0	40	40
APR 11...	4300	160	0	0	420	270	.0	100	20
MAY 16...	1100	60	100	100	1200	1200	.0	20	20
JUN 21...	970	30	0	--	760	680	1.0	80	20
AUG 15...	360	20	0	--	310	250	.5	20	20

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)
MAR 18...	1715	65	--	435	76
APR 11...	1800	220	540	319	189

07184240 LITTLE CHERRY CREEK NEAR WEST MINERAL, KS

LOCATION.--Lat 37°13'31", long 94°50'13", in NW¼NE¼NW¼ sec.32, T.32 S., R.23 E, Cherokee County, at downstream side of county road bridge, 4.1 mi (6.6 km) south of West Mineral.

DRAINAGE AREA.--34.0 mi^2 (88.1 km^2).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: March 1977 to September 1977.
WATER TEMPERATURE: March 1977 to September 1977.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, CHEMICAL (LOW LEVEL) (MG/L)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)
OCT								
17...	1.1	1200	3.9	10.5	--	--	860	860
NOV								
14...	1.6	1500	3.9	10.0	--	--	840	840
JAN								
03...	1.0	1760	3.6	.5	--	--	830	830
FEB								
13...	3.0	1530	4.1	2.5	11.3	--	720	720
MAY								
16...	5.8	1360	4.3	17.5	7.3	3	650	650
AUG								
15...	2.2	1260	4.2	21.0	7.0	13	580	580

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT									
17...	250	58	60	.9	5.0	0	990	11	--
NOV									
14...	250	52	66	1.0	6.0	0	900	11	.7
JAN									
03...	240	57	70	1.1	5.0	0	970	11	.9
FEB									
13...	200	55	61	1.0	5.0	0	830	13	.8
MAY									
16...	180	47	--	--	--	0	750	9.0	.8
AUG									
15...	160	44	54	1.0	5.0	0	680	10	.8

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)
OCT								
17...	28	1420	1.93	4.22	.80	.01	.00	.00
NOV								
14...	27	1330	1.81	5.75	.84	.0	.01	.03
JAN								
03...	29	1400	1.90	3.78	.81	.00	.00	.00
FEB								
13...	24	1200	1.63	9.72	.75	.00	.00	.00
MAY								
16...	24	1020	1.39	16.0	.77	.00	.01	.03
AUG								
15...	22	984	1.34	5.84	1.0	.01	.02	.06

07184240 LITTLE CHERRY CREEK NEAR WEST MINERAL, KS--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)
OCT 17...	3900	3900	10	--	--	10	10	10	10
NOV 14...	3500	3400	0	--	--	0	0	0	0
JAN 03...	3400	3400	0	--	--	0	0	10	10
FEB 13...	2300	2200	0	--	--	0	0	10	10
MAY 16...	2600	2400	--	0	0	0	0	20	20
AUG 15...	1900	1700	0	1	--	10	0	10	10

DATE	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT 17...	3500	3200	--	--	7400	7200	.0	190	190
NOV 14...	3700	3500	--	--	7500	7400	.0	170	170
JAN 03...	3600	3400	--	--	7100	7100	.0	140	140
FEB 13...	4000	3200	--	--	5400	5400	.0	190	190
MAY 16...	1900	660	100	100	6400	6200	.5	160	150
AUG 15...	520	180	0	--	5400	5300	1.0	160	160

07184300 CHERRY CREEK NEAR HALLOWELL, KS

LOCATION.--Lat 37°09'46", long 94°59'43", in NE¼NE¼NE¼ sec.21, T.33 S., R.22 E., Cherokee County, Hydrologic Unit 11070205, at downstream side of highway bridge, 0.6 mi (1.0 km) south of Hallowell.

DRAINAGE AREA.--90 mi^2 (233 km^2), approximately.

WATER DISCHARGE RECORDS

PERIOD OF RECORD.--October 1976 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 805 ft (245.4 m), from topographic map.

REMARKS.--Records good except those for winter months and period of no gage-height record, Aug. 28 to Sept. 30, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,210 ft^3/s (119 m^3/s) May 21, 1979, gage height, 15.37 ft (4.685 m); minimum, no flow Oct. 18 to Nov. 13, 1978.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft^3/s (28.3 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 19	2030	1,010	28.6	10.79	3.289
May 21	0815	* 4,210	119	15.37	4.685

Minimum discharge, no flow Oct. 18 to Nov. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.42	.00	5.0	1.3	11	151	69	19	19	20	8.3	10
2	.38	.00	3.8	1.3	9.5	76	74	18	19	16	6.7	5.5
3	.27	.00	2.8	1.4	8.5	190	48	69	18	13	4.8	4.0
4	.24	.00	2.4	1.4	7.5	179	34	258	17	11	3.7	3.0
5	.19	.00	2.3	1.5	6.5	71	29	109	17	9.7	3.2	2.0
6	.09	.00	2.4	1.8	5.5	44	24	45	16	12	2.9	1.5
7	.08	.00	2.5	2.1	5.5	35	20	27	47	12	2.6	1.0
8	.08	.00	2.4	2.2	4.5	27	18	20	253	15	2.3	.50
9	.07	.00	2.1	2.3	4.0	23	17	16	363	16	2.2	.30
10	.07	.00	1.8	2.2	4.5	20	25	15	525	23	2.3	.20
11	.07	.00	1.8	2.4	5.0	18	750	78	222	12	3.4	.10
12	.08	.00	1.7	2.4	6.0	17	511	59	74	9.0	7.8	.05
13	.04	.00	2.2	2.7	6.0	15	122	25	46	7.8	4.1	.03
14	.03	.01	1.9	2.8	7.0	14	74	17	32	6.8	2.7	.02
15	.03	2.4	1.9	2.7	80	13	53	13	25	6.4	3.0	.02
16	.02	5.9	2.3	2.9	319	12	42	11	20	6.1	2.6	.02
17	.01	12	1.9	3.3	211	12	35	9.9	18	5.9	2.2	.02
18	.00	9.4	1.9	277	110	94	30	9.0	16	5.6	2.2	.02
19	.00	10	2.0	935	59	316	26	8.6	14	5.4	1.9	.02
20	.00	8.4	2.1	734	164	114	24	515	13	4.9	1.6	.02
21	.00	6.5	2.1	197	622	61	22	2720	13	4.6	1.5	.02
22	.00	5.8	2.4	129	572	128	20	387	12	4.4	1.6	.02
23	.00	5.6	2.1	70	363	356	19	93	14	4.4	3.5	.02
24	.00	5.5	1.5	50	126	121	20	62	107	4.0	3.3	.02
25	.00	5.5	1.6	35	62	62	27	45	33	3.6	2.3	.02
26	.00	58	1.4	30	39	38	26	36	16	3.6	1.6	.02
27	.00	86	1.6	25	31	27	23	30	13	3.5	2.1	.02
28	.00	34	1.7	20	50	22	21	26	31	3.2	10	.02
29	.00	13	1.7	17	---	20	20	23	158	3.2	35	.02
30	.00	7.7	1.7	15	---	328	20	21	40	4.0	25	.02
31	.00	---	1.5	13	---	151	---	20	---	11	20	---
TOTAL	2.17	275.71	66.5	2583.7	2899.0	2755	2243	4804.5	2211	267.1	176.4	28.52
MEAN	.070	9.19	2.15	83.3	104	88.9	74.8	155	73.7	8.62	5.69	.95
MAX	.42	86	5.0	935	622	356	750	2720	525	23	35	10
MIN	.00	.00	1.4	1.3	4.0	12	17	8.6	12	3.2	1.5	.02
AC-FT	4.3	547	132	5120	5750	5460	4450	9530	4390	530	350	57

CAL YR 1978 TOTAL 16071.25 MEAN 44.0 MAX 1080 MIN .00 AC-FT 31880
WTR YR 1979 TOTAL 18312.60 MEAN 50.2 MAX 2720 MIN .00 AC-FT 36320

07184300 CHERRY CREEK NEAR HALLOWELL, KS--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: March 1977 to June 1979.
WATER TEMPERATURE: March 1977 to June 1979.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 5,730 micromhos Apr. 8, 1978; minimum, 66 micromhos Feb. 26, 1978.
WATER TEMPERATURES: Maximum, 29.0°C July 15, 16, 18-20, 1977, minimum, 0.0°C on several days during winter period.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 2,060 micromhos Oct. 1; minimum daily, 155 micromhos Jan. 19.
WATER TEMPERATURES: Maximum daily, 20.0°C Oct. 12; minimum daily, 0.0°C Jan. 14-16.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, CHEM-ICAL (LOW LEVEL) (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)
OCT 17...	.01	860	7.2	9.5	--	--	450	390
NOV 14...	.01	870	7.0	10.0	--	--	420	270
JAN 04...	1.4	1840	7.1	.5	9.8	--	960	920
FEB 14...	6.8	1650	6.5	.0	9.6	--	810	760
MAR 18...	295	450	7.2	14.0	--	--	180	160
MAY 15...	13	1190	7.4	18.5	7.9	8	500	440
JUN 20...	13	1360	6.7	25.0	7.4	19	660	620
AUG 15...	2.2	1320	7.1	20.5	6.8	17	640	620

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 17...	110	43	39	.8	6.0	61	430	9.0	--
NOV 14...	93	45	62	1.3	7.0	148	380	9.0	.6
JAN 04...	250	81	70	1.0	6.0	39	990	10	.9
FEB 14...	210	70	62	.9	6.0	47	850	13	.9
MAR 18...	46	15	17	.6	3.0	22	170	6.0	.4
MAY 15...	120	48	--	--	--	56	490	9.0	.7
JUN 20...	170	59	50	.8	4.0	44	720	9.0	.7
AUG 15...	170	52	51	.9	5.0	21	690	9.0	.9

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)
OCT 17...	3.8	677	.92	.02	.41	.02	.00	.00
NOV 14...	11	714	.97	.02	.77	.16	.02	.06
JAN 04...	17	1450	1.97	5.48	.29	.00	.00	.00
FEB 14...	15	1260	1.71	23.1	.37	.00	.00	.00
MAR 18...	3.8	276	.38	220	.81	.56	.02	.06
MAY 15...	9.0	710	.97	24.9	.28	.04	.00	.00
JUN 20...	14	1060	1.44	37.2	.17	.01	.01	.03
AUG 15...	12	1000	1.36	5.94	.12	.01	.01	.03

07184300 CHERRY CREEK NEAR HALLOWELL, KS--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)
OCT									
17...	500	0	0	10	10	0	0	10	0
NOV									
14...	1000	0	0	--	--	0	0	0	0
JAN									
04...	100	0	0	--	--	0	0	20	10
FEB									
14...	0	0	0	0	0	0	0	10	10
MAR									
18...	11000	200	0	10	10	0	0	20	10
APR									
11...	9600	100	0	10	0	0	0	10	0
11...	11000	200	0	20	0	10	0	20	0
12...	6600	200	0	10	0	0	0	10	10
MAY									
15...	1400	0	--	0	0	0	0	10	0
JUN									
20...	200	0	0	0	--	0	0	10	10
AUG									
15...	300	0	0	1	--	10	0	0	0

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
OCT									
17...	490	70	70	--	500	470	.0	20	10
NOV									
14...	5200	2400	--	--	16000	16000	.0	20	20
JAN									
04...	170	60	--	--	1000	1000	.0	50	40
FEB									
14...	180	70	--	--	2800	2800	.0	120	120
MAR									
18...	12000	240	0	0	1300	830	.0	130	80
APR									
11...	9300	130	0	0	1400	1000	.0	160	30
11...	9100	170	100	0	620	390	.0	140	30
12...	4300	180	0	0	400	320	.0	90	70
MAY									
15...	1100	60	100	100	1400	1300	.5	30	30
JUN									
20...	370	40	0	--	1600	1600	1.0	20	20
AUG									
15...	330	30	0	--	430	410	1.0	20	20

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)
MAR					
18...	1800	165	--	670	298
18...	2040	295	450	281	224
19...	1430	365	475	396	390
20...	1010	110	480	176	52
APR					
11...	1220	966	450	662	1730
11...	2130	970	245	710	1060
12...	0900	590	345	578	921

07184300 CHERRY CREEK NEAR HALLOWELL, KS--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2060	---	1400	1610	1200	560	510	1200	1210			
2	2050	---	1450	1480	1200	641	630	1200	1190			
3	2050	---	1500	1790	1210	462	775	820	1200			
4	2040	---	1530	1780	1250	463	895	382	1200			
5	2040	---	1540	1790	1250	560	1020	622	1200			
6	---	---	1540	1800	1230	746	1110	1120	1210			
7	---	---	1520	1790	1250	785	1210	1140	1050			
8	---	---	1540	1520	1280	984	1200	1190	385			
9	---	---	1560	1540	1290	1050	1200	1210	305			
10	---	---	1590	1550	1280	1070	1160	1210	245			
11	---	---	1590	1530	1250	1090	180	770	420			
12	---	---	1600	1530	1230	1110	245	920	780			
13	---	---	1550	1510	1230	1150	590	1160	1120			
14	---	---	1590	1500	1350	1330	790	1100	1150			
15	---	---	1590	1500	823	1280	960	1040	1180			
16	---	963	1540	1490	937	1280	1060	1080	1220			
17	---	1040	1580	1480	659	1260	1100	1100	1250			
18	---	1220	1580	370	396	450	1120	1150	1280			
19	---	1370	1570	155	610	540	1150	1260	1320			
20	---	1410	1560	184	364	505	1160	639	1360			
21	---	1430	1560	460	231	420	1180	290	1300			
22	---	1400	1410	580	178	340	1190	315	1250			
23	---	1360	1260	810	252	445	1200	700	1220			
24	---	1470	1340	810	356	525	1190	870	650			
25	---	1440	1390	1080	477	735	1150	1040	1100			
26	---	875	1430	1110	662	850	1150	1100	1210			
27	---	1190	1470	1130	768	920	1140	1120	1250			
28	---	1000	1490	1150	740	995	1190	1150	1120			
29	---	1250	1530	1180	---	995	1190	1180	515			
30	---	1310	1560	1190	---	625	1190	1190	1080			
31	---	---	1590	1200	---	385	---	1190	---			

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18.5	12.5	8.0	1.0	1.0	5.0						
2	19.5	13.0	9.0	1.0	1.0	6.5						
3	19.0	14.5	6.5	.5	1.0	8.0						
4	17.5	17.5	3.5	1.0	.5	5.0						
5	16.5	17.0	4.0	1.0	.5	5.5						
6	14.0	10.0	3.0	1.0	.5	6.0						
7	14.0	8.5	1.5	1.0	1.0	7.5						
8	15.0	9.5	1.0	.5	1.0	7.0						
9	16.0	13.0	1.0	.5	1.0	7.0						
10	17.5	14.0	1.0	.5	.5	7.0						
11	19.0	12.5	1.0	.5	.5	6.5						
12	20.0	12.5	1.5	.5	1.0	10.0						
13	16.5	16.5	1.5	.5	.5	11.0						
14	13.5	10.0	1.5	.0	.5	9.5						
15	13.0	7.5	2.0	.0	.5	9.0						
16	12.5	7.5	2.0	.0	1.0	9.5						
17	11.0	7.5	1.5	.5	1.0	10.5						
18	14.5	7.5	3.5	.5	.5	12.0						
19	13.0	7.0	7.5	.5	.5	12.5						
20	12.5	6.5	8.5	.5	.5	12.5						
21	16.0	5.5	5.0	1.0	.5	12.5						
22	19.5	6.0	4.0	2.0	.5	13.0						
23	17.0	8.5	4.5	3.5	.5	10.0						
24	12.0	8.5	3.0	1.5	2.5	7.0						
25	16.0	8.5	2.5	1.0	2.5	7.5						
26	11.0	9.5	2.5	1.5	2.5	9.0						
27	11.0	8.5	2.0	2.0	4.5	9.0						
28	12.0	7.0	3.0	1.5	4.5	12.5						
29	13.0	7.0	4.5	1.5	---	15.5						
30	12.5	7.5	1.5	1.5	---	15.0						
31	12.5	---	1.0	1.0	---	13.0						

07186010 SECOND COW CREEK AT PITTSBURG, KS

LOCATION.--Lat 37°23'49", long 94°44'30", in SW¼SW¼SW¼ sec.25, T.30 S., R.24 E., Crawford County, at downstream side of county road bridge, 2.2 mi (3.5 km) southwest of Pittsburg.

DRAINAGE.--60.0 mi^2 (155 km^2).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: March 1977 to July 1979.
WATER TEMPERATURE: March 1977 to July 1979.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 3,500 micromhos Mar. 21, 1977; minimum, 129 micromhos June 22, 1977.
WATER TEMPERATURES: Maximum, 32.5°C July 6, 7, 15, 16, 1977; minimum, 0.0°C on several days during winter period.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 2,250 micromhos Jan. 17; minimum daily, 184 micromhos Feb. 22.
WATER TEMPERATURES: Maximum daily, 28.5°C July 14, minimum daily, 0.0°C on several days during winter period.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, CHEMICAL (LOW LEVEL) (MG/L)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)
NOV 16...	.02	1580	7.4	6.0	7.8	--	720	500
FEB 14...	3.9	1500	8.3	1.0	11.2	--	780	620
MAY 15...	5.1	1450	7.9	19.0	8.2	13	750	590
JUN 19...	4.9	1260	7.8	25.5	8.2	18	650	500
AUG 13...	2.8	859	7.6	23.5	5.7	15	390	290

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
NOV 16...	160	79	200	3.2	13	221	820	56	.8
FEB 14...	170	87	53	.8	5.0	156	680	21	.7
MAY 15...	170	78	--	--	--	164	660	10	.7
JUN 19...	150	69	38	.6	4.0	148	560	10	.6
AUG 13...	90	40	24	.5	4.0	98	330	8.0	.5

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)
NOV 16...	8.6	1470	2.00	.08	.66	.04	.01	.03
FEB 14...	8.0	1120	1.52	11.8	.23	.06	.04	.12
MAY 15...	4.0	1500	2.04	20.7	.24	.04	.00	.00
JUN 19...	10	930	1.26	12.3	.24	.07	.01	.03
AUG 13...	6.0	563	.77	4.26	.24	.10	.01	.03

07186010 SECOND COW CREEK AT PITTSBURG, KS--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)
NOV 16...	100	0	0	--	--	10	0	20	10
FEB 14...	300	0	0	0	0	10	0	10	10
APR 12...	6700	0	0	80	0	--	0	220	10
MAY 15...	600	100	--	10	10	0	0	30	20
JUN 19...	0	0	0	0	--	0	0	10	10
AUG 13...	500	0	0	12	--	0	0	0	0

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
NOV 16...	780	150	--	--	3100	3100	.0	20	20
FEB 14...	720	270	--	--	530	510	.0	60	60
APR 12...	3500	100	0	0	250	220	.0	160	20
MAY 15...	670	60	100	0	580	530	2.0	1500	580
JUN 19...	800	20	0	--	410	340	1.0	20	20
AUG 13...	1000	10	0	--	420	360	1.0	20	20

07186010 SECOND COW CREEK AT PITTSBURG, KS--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	945	---	724	2050	1400	555	1070	1580	1450	916		
2	1030	---	400	2100	1420	469	1080	1550	1480	925		
3	1070	---	920	2100	1480	523	1100	535	1510	933		
4	1100	---	1100	2120	1500	448	1090	621	1550	927		
5	1140	---	950	2130	1550	587	1080	620	1620	872		
6	---	---	832	2140	1580	684	1080	920	1600	922		
7	---	---	988	2080	1600	740	1090	1140	1130	949		
8	---	---	1120	2020	1620	851	1100	1260	372	757		
9	---	---	1210	2090	1590	936	1150	1380	305	734		
10	---	---	1230	2110	1560	941	900	1400	332	935		
11	---	---	1270	2110	1530	977	539	1380	534	922		
12	---	---	1300	2110	1500	1030	581	1380	687	930		
13	---	---	1380	2120	1520	1070	687	1430	803	947		
14	---	---	1460	2140	1540	1150	812	1450	868	1020		
15	---	---	1460	2180	1310	1200	890	1420	946	1090		
16	---	---	1490	2220	622	1220	979	1450	1010	1150		
17	---	1500	1550	2250	904	1210	1060	1460	1070	1220		
18	---	973	1510	2200	1030	1030	1130	1500	1130	1270		
19	---	814	1500	2100	988	362	1200	1460	1150	1340		
20	---	862	1490	1980	1040	851	1270	368	1190	1370		
21	---	923	1510	1950	705	755	1330	544	1230	1400		
22	---	1270	1500	1800	184	693	1350	750	1270	1400		
23	---	1290	1540	1750	261	620	1390	903	1310	1410		
24	---	963	1590	1620	376	580	1400	1000	1400	1460		
25	---	1000	1630	1460	464	674	1550	1100	1340	1440		
26	---	950	1660	1300	548	800	1540	1150	1290	1420		
27	---	609	1720	1320	623	820	1540	1200	1280	1490		
28	---	614	1730	1340	558	947	1560	1270	1300	1470		
29	---	687	1760	1380	---	1100	1570	1330	---	1440		
30	---	831	1890	1390	---	1060	1580	1360	---	1390		
31	---	---	2000	1400	---	1100	---	1390	---	1350		

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18.5	12.5	8.0	.0	.0	1.0	7.0	12.5	15.5	19.0	23.0	
2	19.5	13.0	9.0	.0	.0	1.5	5.5	13.5	15.5	21.0	23.5	
3	19.0	14.5	6.5	.0	.0	2.0	4.0	11.0	15.5	24.0	25.0	
4	17.5	17.0	3.5	.0	.0	1.0	3.0	9.5	17.5	26.5	27.0	
5	16.5	16.5	4.0	.0	.0	.5	4.0	11.0	20.0	26.0	27.5	
6	14.0	10.5	3.0	.0	.0	1.0	5.0	13.0	20.0	21.5	28.0	
7	14.0	9.0	1.5	.0	.0	1.0	7.5	14.5	18.5	19.5	27.0	
8	15.0	9.5	1.0	.0	.0	1.0	9.0	16.0	19.0	20.0	27.0	
9	16.0	12.5	1.0	.0	.0	1.0	7.5	17.5	20.5	20.5	26.5	
10	18.5	13.5	1.0	.0	.0	1.0	7.5	15.0	19.0	24.5	25.0	
11	20.5	12.5	1.0	.0	.0	1.5	7.5	12.5	18.0	26.5	20.0	
12	18.0	12.5	1.5	.0	.0	3.0	8.0	12.5	20.0	27.0	19.0	
13	14.5	16.0	1.5	.0	.0	5.0	9.0	14.0	20.5	28.0	18.5	
14	12.0	10.0	1.5	.0	.0	5.0	10.0	15.5	21.5	28.5	20.0	
15	12.0	7.5	2.0	.0	.0	4.0	12.0	14.5	21.5	27.5	17.5	
16	12.0	7.5	2.0	.0	.0	4.5	13.0	15.0	22.5	27.0	18.5	
17	11.0	7.5	1.5	.0	.0	5.0	15.0	17.0	22.5	25.0	19.0	
18	14.5	7.0	3.5	.0	.0	6.0	15.0	17.0	22.5	23.0	20.0	
19	13.0	7.0	7.0	.0	.0	7.5	15.0	17.0	22.5	21.5	21.0	
20	12.5	6.5	8.0	.0	.0	7.5	16.5	16.0	24.5	21.5	21.0	
21	16.0	6.0	4.5	.0	.0	7.5	15.5	16.5	25.0	20.5	20.0	
22	19.5	6.5	3.5	.5	.0	8.0	15.0	16.0	24.5	21.5	19.0	
23	17.0	8.0	4.0	1.0	.0	5.5	14.5	16.5	23.5	22.5	18.0	
24	12.0	8.5	2.5	.5	.5	3.5	13.5	15.0	21.5	24.0	19.0	
25	16.0	8.5	2.0	.0	.5	4.5	14.5	14.5	20.5	24.0	19.5	
26	11.0	9.0	2.0	.0	1.0	6.0	12.5	13.5	20.5	25.5	20.0	
27	11.0	8.5	1.5	.5	1.0	6.0	11.0	14.5	22.0	26.0	20.0	
28	12.0	7.0	2.5	.0	1.5	6.5	10.0	17.0	20.0	25.0	19.0	
29	13.0	7.0	3.5	.0	---	9.0	11.0	17.5	21.5	26.0	20.0	
30	12.5	7.5	1.0	.0	---	10.5	11.0	18.5	21.5	26.5	20.5	
31	12.5	---	.5	.0	---	9.0	---	17.5	---	24.0	21.5	

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
APR					
12...	1200	105	500	126	36

07186020 FIRST COW CREEK AT FRONTENAC, KS

LOCATION.--Lat 37°26'25", long 94°42'54" in SE¼SE¼SW¼ sec.7, T.30 S., R.25 E., Crawford County, at upstream side of county road bridge, 0.2 mi (0.3 km) southwest of Frontenac.

DRAINAGE AREA.--30.0 mi^2 (77.7 km^2).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, CHEM-ICAL (LOW LEVEL) (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)
OCT 19...	.10	1280	7.8	13.5	--	--	410	200
NOV 16...	.69	1040	7.5	7.0	1.6	--	260	0
JAN 05...	.40	1890	7.3	.5	8.8	--	840	650
FEB 14...	3.9	1880	8.2	.5	8.2	--	920	750
MAY 18...	2.3	1710	7.5	20.0	3.4	19	790	640
JUN 19...	5.1	1750	6.6	25.0	5.5	19	840	700
AUG 13...	.90	1000	7.5	22.0	3.9	13	420	300

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 19...	86	48	110	2.4	12	213	300	110	--
NOV 16...	53	32	150	4.0	16	287	94	150	.9
JAN 05...	170	100	110	1.7	10	189	750	71	.8
FEB 14...	170	120	90	1.3	7.0	172	840	55	.8
MAY 18...	150	100	--	--	--	148	760	33	.8
JUN 19...	160	110	69	1.0	6.0	139	840	20	.8
AUG 13...	83	53	49	1.0	7.0	123	360	31	.6

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)
OCT 19...	8.6	803	1.09	.22	.21	1.6	1.5	4.6
NOV 16...	19	689	.94	1.28	1.1	9.3	8.4	26
JAN 05...	8.0	1330	1.81	1.44	.51	2.6	2.7	8.3
FEB 14...	.0	1390	1.89	14.6	2.6	.96	.55	1.7
MAY 18...	4.0	1140	1.55	7.08	1.1	.65	.48	1.5
JUN 19...	7.0	1300	1.77	17.9	.35	.42	.24	.74
AUG 13...	8.0	670	.91	1.63	.49	1.1	.94	2.9

07186020 FIRST COW CREEK AT FRONTENAC, KS--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)
OCT 19...	500	100	0	--	--	10	10	10	10
NOV 16...	100	0	0	--	--	0	0	0	0
JAN 05...	0	0	0	--	--	0	0	10	10
FEB 14...	200	200	0	--	0	0	0	10	10
MAY 18...	200	100	--	0	0	0	0	10	10
JUN 19...	0	0	0	0	--	0	0	10	10
AUG 13...	200	0	0	0	--	0	0	0	0

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
OCT 19...	380	20	--	--	190	120	.0	10	10
NOV 16...	1000	420	--	--	1800	1700	.0	20	10
JAN 05...	240	30	--	--	150	140	.0	30	20
FEB 14...	360	100	--	--	270	260	.0	90	90
MAY 18...	460	30	100	100	770	740	.5	50	30
JUN 19...	550	10	0	--	530	510	1.0	20	10
AUG 13...	290	10	0	--	310	270	1.0	60	20

07186025 EAST COW CREEK AT FRONTENAC, KS

LOCATION.--Lat 37°27'18", long 94°38'48" in SW¼SW¼SW¼ sec.2, T.30 S., R.25 E., Crawford County, at upstream side of culvert on county road, 2.0 mi (3.2 km) east of Frontenac.

DRAINAGE AREA.--7.5 mi^2 (19.4 km^2).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, CHEM-ICAL (LOW LEVEL) (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)
JAN 04...	.05	3250	7.8	.5	13.2	--	2000	1700
FEB 14...	1.1	1540	M8.4	.0	12.0	--	900	770
MAY 18...	6.4	2340	8.0	19.5	8.4	13	1300	1100
JUN 19...	1.8	2040	7.1	30.0	8.0	14	1200	1000
AUG 13...	1.3	1850	8.2	24.0	10.1	13	1000	800

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
JAN 04...	430	220	120	1.2	7.0	279	1900	10	1.1
FEB 14...	200	98	52	.8	4.0	131	840	11	.8
MAY 18...	290	150	--	--	--	189	1270	7.0	1.0
JUN 19...	270	120	65	.8	5.0	180	1070	6.0	1.0
AUG 13...	230	110	59	.8	6.0	197	920	6.0	.8

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)
JAN 04...	7.0	2860	3.89	.39	.00	.01	.00	.00
FEB 14...	7.0	1290	1.75	3.83	.12	.01	.00	.00
MAY 18...	2.0	1850	2.52	32.0	.10	.01	.00	.00
JUN 19...	5.0	1650	2.24	8.02	.23	.04	.00	.00
AUG 13...	7.0	1460	1.99	5.12	.14	.02	.00	.00

07186025 EAST COW CREEK AT FRONTENAC, KS--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)
JAN 04...	0	0	0	--	--	0	0	10	10
FEB 14...	100	0	0	--	--	0	0	10	10
MAY 18...	300	0	--	0	0	0	0	10	10
JUN 19...	100	100	0	0	--	0	0	10	10
AUG 13...	300	0	0	0	--	0	0	0	0

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
JAN 04...	160	50	--	--	350	350	.0	70	70
FEB 14...	260	20	--	--	310	270	.0	180	140
MAY 18...	400	20	100	100	1200	1100	.4	20	20
JUN 19...	790	40	0	--	710	550	1.0	30	10
AUG 13...	320	30	0	--	200	160	1.0	10	10

07186030 EAST COW CREEK NEAR PITTSBURG, KS

LOCATION.--Lat 37°22'04", long 94°40'30", in NW¼NW¼NE¼ sec.9, T.31 S., R.25 E., Crawford County, at downstream side of county road bridge, 3.4 mi (5.5 km) southeast of Pittsburg.

DRAINAGE AREA.--43.0 mi^2 (111 km^2).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, CHEM-ICAL (LOW LEVEL) (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)
NOV								
16...	6.1	455	7.9	6.0	9.0	--	220	200
JAN								
04...	1.1	2020	6.5	.5	9.5	--	1100	1100
FEB								
12...	5.3	1760	7.2	.5	11.0	--	880	840
MAY								
15...	12	1420	6.7	18.5	8.2	16	690	660
JUN								
19...	7.2	1560	7.3	23.5	7.3	16	810	760
AUG								
13...	5.5	1280	7.0	23.0	8.0	15	550	530

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
NOV									
16...	51	23	--	--	5.0	21	210	12	.5
JAN									
04...	220	130	85	1.1	7.0	14	1200	22	1.1
FEB									
12...	190	100	70	1.0	6.0	39	940	21	.9
MAY									
15...	150	79	--	--	--	26	740	11	.8
JUN									
19...	170	93	66	1.0	7.0	46	890	10	.9
AUG									
13...	120	61	54	1.0	6.0	24	610	12	.8

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)
NOV								
16...	4.3	327	.44	5.39	.39	.41	.00	.00
JAN								
04...	13	1700	2.31	5.05	.53	.00	.00	.00
FEB								
12...	12	1370	1.86	19.6	.67	.00	.00	.00
MAY								
15...	10	1020	1.39	33.0	.77	.01	.01	.03
JUN								
19...	11	1380	1.88	26.8	.75	.00	.00	.00
AUG								
13...	10	895	1.22	13.3	.53	.01	.00	.00

07186030 EAST COW CREEK NEAR PITTSBURG, KS--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)
NOV 16...	3700	200	0	--	--	0	0	0	0
JAN 04...	700	400	0	--	--	0	0	10	10
FEB 12...	900	100	0	--	--	0	0	10	10
APR 12...	2700	0	0	20	0	0	0	40	10
MAY 15...	400	0	--	0	0	10	0	0	0
JUN 19...	100	100	0	0	--	0	0	10	10
AUG 13...	400	0	0	1	--	0	0	0	0

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
NOV 16...	2000	100	--	--	8200	8100	.0	300	220
JAN 04...	440	350	--	--	18000	18000	.0	450	450
FEB 12...	560	270	--	--	10000	10000	.0	600	600
APR 12...	2600	290	0	0	4200	4200	.0	640	230
MAY 15...	470	140	100	0	12000	12000	1.0	280	270
JUN 19...	380	40	0	--	8400	8300	1.0	180	150
AUG 13...	420	30	0	--	6000	5800	1.0	130	120

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)
NOV 16...	0910	6.1	490	57	.94
APR 12...	1130	[illegible]	780	[illegible]	11

07186040 COW CREEK NEAR WEIR, KS

LOCATION.--Lat 37°18'35", long 94°40'48", in NE¼NE¼NW¼ sec.33, T.31 S., R.25 E., Cherokee County, Hydrologic Unit 11070207, at downstream side of highway bridge, 1.5 mi (2.4 km) upstream from Brush Creek and 5.0 mi (8.0 km) east of Weir.

DRAINAGE AREA.--170 mi^2 (440 km^2), approximately.

WATER DISCHARGE RECORDS

PERIOD OF RECORD.--October 1976 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 845 ft (257.6 m) from topographic map.

REMARKS.--Records good except those for period of no gage-height record, June 30 to Aug. 13, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,120 ft^3/s (230 m^3/s) June 23, 1977, gage height, 16.89 ft (5.148 m); minimum, 3.2 ft^3/s (0.091 m^3/s) Aug. 23, 1978.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,500 ft^3/s (42.5 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 19	2315	2,050	58.1	11.10	3.383	June 10	1145	2,320	65.7	11.64	3.548
May 20	1530	* 5,400	153	15.56	4.743	June 29	1000	4,540	129	14.84	4.523
June 9	1115	2,470	70.0	11.94	3.639						

Minimum discharge, 3.4 ft^3/s (0.096 m^3/s) Oct. 13, 14, 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.8	4.5	18	7.7	22	377	96	18	55	500	30	29
2	5.2	4.9	16	6.8	23	165	97	22	42	150	15	30
3	5.0	5.6	17	6.2	21	393	65	352	39	100	12	21
4	5.1	6.1	14	6.1	20	354	57	860	34	50	10	18
5	4.9	5.9	12	5.9	18	143	54	326	26	20	9.0	16
6	5.0	6.1	13	6.0	19	92	46	154	34	20	8.0	14
7	4.2	12	13	7.1	19	70	40	93	372	22	7.0	12
8	3.9	9.7	12	7.1	17	56	35	62	591	25	6.5	10
9	3.6	9.2	10	7.4	16	48	30	46	1950	150	6.5	9.1
10	3.6	8.9	9.6	7.5	17	41	35	39	1800	70	6.0	8.2
11	3.8	9.0	9.8	7.6	18	36	965	229	496	35	300	8.0
12	3.8	9.5	10	7.8	22	32	641	67	191	25	50	7.7
13	3.5	11	10	8.5	19	30	191	54	115	20	20	7.3
14	3.6	19	9.6	8.6	25	25	109	39	77	18	16	6.3
15	3.6	40	9.5	8.3	152	22	74	32	55	17	121	6.0
16	3.7	16	9.6	9.6	241	22	56	27	42	15	130	5.6
17	4.3	47	8.9	11	224	24	46	24	35	14	42	5.3
18	4.1	20	8.3	52	126	86	40	22	30	13	26	5.4
19	3.8	11	9.1	1390	73	930	36	22	27	12	18	5.3
20	3.8	8.1	9.9	1480	189	270	33	3670	24	11	15	5.2
21	3.8	7.0	9.6	362	1160	135	29	2230	21	10	14	5.2
22	3.6	6.5	8.3	165	1050	177	26	266	20	9.0	13	5.0
23	3.8	8.2	8.0	125	1090	966	24	145	47	8.0	206	4.6
24	4.5	8.2	7.8	103	309	359	25	94	76	7.5	63	4.3
25	4.5	8.8	7.6	67	139	163	25	69	62	7.0	26	4.2
26	4.4	143	7.1	47	90	101	23	54	44	10	18	4.1
27	4.5	167	6.4	38	73	71	21	46	30	50	29	4.3
28	4.5	76	6.2	31	182	59	20	59	1030	25	665	3.9
29	4.5	37	7.4	26	---	51	19	107	4200	15	216	4.0
30	4.3	23	7.1	25	---	179	19	72	1500	10	106	4.0
31	4.4	---	7.1	23	---	67	---	60	---	15	43	---
TOTAL	131.1	748.2	311.9	4063.2	5374	5544	2979	9360	13069	1453.5	2245.0	273.0
MEAN	4.23	24.9	10.1	131	192	179	99.3	302	436	46.9	72.4	9.10
MAX	5.8	167	18	1480	1160	966	965	3670	4200	500	665	30
MIN	3.5	4.5	6.2	5.9	16	22	19	18	20	7.0	6.0	3.9
AC-FT	260	1480	619	8060	10660	11000	5910	18570	25920	2880	4450	541

CAL YR 1978 TOTAL 29934.3 MEAN 82.0 MAX 3380 MIN 3.3 AC-FT 59370
WTR YR 1979 TOTAL 45551.9 MEAN 125 MAX 4200 MIN 3.5 AC-FT 90350

07186040 COW CREEK NEAR WEIR, KS--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: March 1977 to September 1978.
WATER TEMPERATURE: March 1977 to September 1978.

INSTRUMENTATION.--Continuous monitor for specific conductance and water temperatures since March 1977.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 1,890 micromhos May 14, 1977; minimum, 329 micromhos Sept. 29, 1977.
WATER TEMPERATURES: Maximum, 28.0°C Aug. 26, 1978, minimum, 0.0°C or several days during winter period.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, CHEM-ICAL (LOW LEVEL) (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)
OCT 16...	3.8	958	7.6	15.0	--	--	230	120
NOV 15...	52	785	7.5	8.5	--	--	200	44
JAN 02...	7.0	1440	7.4	.5	9.7	--	510	420
FEB 12...	22	1500	7.4	.5	9.0	--	620	510
MAR 19...	1330	330	7.5	14.0	8.2	--	120	76
MAY 15...	30	1210	7.2	18.5	5.1	13	540	470
JUN 18...	30	1220	7.7	25.0	6.2	16	540	470
AUG 14...	13	738	7.2	22.5	4.2	15	300	250

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (MG/L AS CACO3)	SULFATE, DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 16...	51	24	95	2.7	11	115	210	81	--
NOV 15...	40	24	89	2.7	13	156	180	65	.8
JAN 02...	110	58	96	1.8	10	90	510	66	.8
FEB 12...	130	73	81	1.4	8.0	107	630	49	.8
MAR 19...	35	8.9	14	.5	4.0	44	93	13	.3
MAY 15...	120	60	--	--	--	66	560	20	.8
JUN 18...	120	56	57	1.1	5.0	70	540	20	.7
AUG 14...	70	31	30	.8	5.0	48	280	13	.6

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)
OCT 16...	4.8	547	.74	5.61	6.8	2.0	1.9	5.8
NOV 15...	13	520	.71	73.0	13	6.5	5.0	15
JAN 02...	10	918	1.25	17.4	7.8	3.2	2.9	8.9
FEB 12...	11	1050	1.43	62.4	4.3	1.1	.64	2.0
MAR 19...	2.8	199	.27	715	.86	1.2	.05	.15
MAY 15...	10	640	.87	51.8	.59	.20	.05	.15
JUN 18...	13	860	1.17	69.7	.31	.19	.05	.15
AUG 14...	8.0	471	.64	16.5	.27	.31	.09	.28

07186040 COW CREEK NEAR WEIR, KS--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)
OCT									
16...	800	100	0	0	0	0	0	0	0
NOV									
15...	600	0	0	--	--	0	0	0	0
JAN									
02...	200	0	0	--	--	0	0	0	0
FEB									
12...	100	0	0	0	0	0	0	10	10
MAR									
19...	13000	400	0	0	0	10	0	20	10
APR									
11...	7500	100	0	10	0	0	0	20	10
11...	8300	0	0	0	0	0	0	40	10
11...	6500	200	0	10	0	0	0	10	10
12...	5100	200	0	10	0	0	0	10	0
MAY									
15...	900	0	--	0	0	0	0	10	10
JUN									
18...	500	0	0	0	--	0	0	10	10
AUG									
14...	800	0	0	1	--	0	0	0	0

DATE	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT									
16...	940	50	30	--	1200	1200	.0	20	10
NOV									
15...	2500	390	--	--	1800	1700	.0	40	10
JAN									
02...	500	60	--	--	3400	3400	.0	90	60
FEB									
12...	740	40	--	--	3600	3600	.0	180	170
MAR									
19...	16000	230	0	0	1200	500	.0	180	40
APR									
11...	9400	80	100	0	2700	2000	.5	370	60
11...	11000	150	0	0	1600	1100	.0	290	30
11...	7300	170	0	0	1200	860	.0	220	50
12...	4900	160	0	0	1100	950	.0	170	70
MAY									
15...	1100	20	0	0	450	4500	.5	100	70
JUN									
18...	1000	30	0	--	2700	2600	1.0	160	30
AUG									
14...	1600	30	0	--	1100	1000	1.0	50	40

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
MAR					
18...	1610	35	--	28	2.6
19...	0915	1330	330	967	3470
19...	1345	1150	--	559	1740
19...	1800	780	460	348	733
19...	2115	580	480	268	420
20...	0910	275	575	171	127
APR					
11...	1100	1050	625	478	1360
11...	2030	1420	410	421	1610
12...	0730	780	485	201	423

07186040 COW CREEK NEAR WEIR, KS--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)
OCT									
16...	800	100	0	0	0	0	0	0	0
NOV									
15...	600	0	0	--	--	0	0	0	0
JAN									
02...	200	0	0	--	--	0	0	0	0
FEB									
12...	100	0	0	0	0	0	0	10	10
MAR									
19...	13000	400	0	0	0	10	0	20	10
APR									
11...	7500	100	0	10	0	0	0	20	10
11...	8300	0	0	0	0	0	0	40	10
11...	6500	200	0	10	0	0	0	10	10
12...	5100	200	0	10	0	0	0	10	0
MAY									
15...	900	0	--	0	0	0	0	10	10
JUN									
18...	500	0	0	0	--	0	0	10	10
AUG									
14...	800	0	0	1	--	0	0	0	0

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
OCT									
16...	940	50	30	--	1200	1200	.0	20	10
NOV									
15...	2500	390	--	--	1800	1700	.0	40	10
JAN									
02...	500	60	--	--	3400	3400	.0	90	60
FEB									
12...	740	40	--	--	3600	3600	.0	180	170
MAR									
19...	16000	230	0	0	1200	500	.0	180	40
APR									
11...	9400	80	100	0	2700	2000	.5	370	60
11...	11000	150	0	0	1600	1100	.0	290	30
11...	7300	170	0	0	1200	860	.0	220	50
12...	4900	160	0	0	1100	950	.0	170	70
MAY									
15...	1100	20	0	0	450	4500	.5	100	70
JUN									
18...	1000	30	0	--	2700	2600	1.0	160	30
AUG									
14...	1600	30	0	--	1100	1000	1.0	50	40

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)
MAR					
18...	1610	35	--	28	2.6
19...	0915	1330	330	967	3470
19...	1345	1150	--	559	1740
19...	1800	780	460	348	733
19...	2115	580	480	268	420
20...	0910	275	575	171	127
APR					
11...	1100	1050	625	478	1360
11...	2030	1420	410	421	1610
12...	0730	780	485	201	423

07186050 BRUSH CREEK NEAR WEIR, KS

LOCATION.--Lat 37°18'32", long 94°42'19", in NE¼NE¼NE¼ sec.31, T.31 S., R.25 E., Cherokee County, at upstream side of U.S. 69 highway bridge, 4.0 mi (6.4 km) east of Weir.

DRAINAGE AREA.--30.0 mi^2 (77.7 km^2).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: March 1977 to September 1979.
WATER TEMPERATURE: March 1977 to September 1979.

INSTRUMENTATION.--Continuous monitor for specific conductance and water temperatures since March 1977.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 1,720 micromhos May 21, 1977, minimum, 180 micromhos Nov. 1, 1977.
WATER TEMPERATURES: Maximum, 27.0°C July 24, 25, 1977; minimum, 0.0°C on several days during winter period.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,320 micromhos Dec. 14; minimum daily, 276 micromhos Feb. 21.
WATER TEMPERATURES: Maximum daily, 26.0°C Aug. 5, minimum daily, 0.0°C on several days during winter period.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, CHEM-ICAL (LOW LEVEL) (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)
OCT								
16...	.12	1070	3.9	13.0	--	--	460	460
NOV								
15...	.80	958	5.9	8.0	--	--	460	460
JAN								
02...	.38	1280	3.4	.5	12.8	--	490	490
FEB								
12...	1.8	1330	3.5	1.0	11.5	--	520	520
MAR								
19...	54	725	6.9	13.5	9.8	--	330	290
MAY								
17...	3.4	1050	6.1	20.0	7.8	8	460	450
JUN								
19...	8.0	1000	4.2	24.0	7.4	13	440	440
AUG								
14...	2.8	1070	6.9	22.0	5.6	17	510	470

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT									
16...	110	44	50	1.0	7.0	0	530	13	--
NOV									
15...	110	44	52	1.1	8.0	0	520	12	.6
JAN									
02...	110	52	56	1.1	6.0	0	630	14	.7
FEB									
12...	120	53	50	1.0	6.0	0	630	15	.8
MAR									
19...	80	31	21	.5	4.0	38	320	8.0	.5
MAY									
17...	110	45	--	--	--	8	540	11	.8
JUN									
19...	100	44	42	.9	5.0	0	510	10	.7
AUG									
14...	120	51	32	.6	4.0	42	520	8.0	.6

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)
OCT								
16...	29	791	1.08	.26	1.3	.01	.01	.03
NOV								
15...	29	785	1.07	1.70	1.2	.05	.01	.03
JAN								
02...	34	916	1.25	.94	.89	.03	.01	.03
FEB								
12...	26	910	1.24	4.42	1.1	.00	.00	.00
MAR								
19...	4.3	493	.67	71.9	.42	.08	.00	.00
MAY								
17...	19	730	.99	6.70	.94	.01	.01	.03
JUN								
19...	22	720	.98	15.6	.74	.01	.02	.06
AUG								
14...	12	774	1.05	5.85	.42	.02	.01	.03

07186050 BRUSH CREEK NEAR WEIR, KS--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)
OCT									
16...	2000	1900	0	--	--	0	0	10	10
NOV									
15...	2000	1900	0	--	--	10	0	0	0
JAN									
02...	2400	2300	0	--	--	0	0	0	0
FEB									
12...	1000	1000	0	--	0	0	0	10	10
MAR									
19...	3600	100	0	0	0	0	0	10	0
APR									
12...	2300	100	0	10	0	0	0	10	0
MAY									
17...	400	300	--	0	0	0	0	10	10
JUN									
19...	300	300	0	1	--	0	0	10	10
AUG									
14...	200	0	0	1	--	0	0	0	0

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
OCT									
16...	1600	1500	--	--	4800	4700	.0	280	280
NOV									
15...	310000	3000	--	--	4600	4600	.0	300	300
JAN									
02...	6200	6000	--	--	5300	5200	.0	300	300
FEB									
12...	4200	4000	--	0	3800	3800	.0	340	320
MAR									
19...	4500	150	0	0	930	910	.0	120	90
APR									
12...	3500	630	0	0	910	900	.0	150	130
MAY									
17...	1100	180	0	0	2900	2900	.6	340	330
JUN									
19...	1600	130	0	--	2700	2700	1.0	260	250
AUG									
14...	1200	130	0	--	1200	1200	1.0	30	20

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)
MAR					
19...	1230	54	725	65	9.5
APR					
12...	1100	43	715	56	6.5

07186050 BRUSH CREEK NEAR WEIR, KS--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1020	1190	1140	1210	1050	492	656	1080	1110	916	664	441
2	1020	1180	1100	1280	1090	590	695	1070	1120	925	777	501
3	1030	987	1120	1250	1160	441	767	882	1130	933	948	554
4	1030	812	1130	1200	1150	553	820	621	1160	927	989	606
5	1040	811	1190	1240	1170	679	837	795	1230	928	996	480
6	1040	1050	1210	1210	1180	733	885	871	1190	920	1010	592
7	1030	1280	1220	1260	1180	732	885	914	547	897	1010	649
8	1030	1210	1250	1190	1210	752	897	939	588	793	1010	693
9	1020	916	1260	1230	1240	762	914	955	644	734	1020	721
10	1020	1000	1250	1210	1270	790	854	956	405	935	739	744
11	1030	1210	1210	1250	1300	824	367	427	657	922	451	754
12	1030	1210	1240	1240	1330	839	677	640	747	930	715	768
13	1020	1140	1280	1220	1000	854	829	869	806	956	990	784
14	1000	1190	1320	1230	700	868	869	920	844	963	1000	801
15	986	1120	1310	1210	409	896	874	959	864	975	1030	806
16	972	1080	1310	1220	348	907	873	982	879	978	1030	807
17	957	1080	1310	1200	490	899	880	992	901	982	956	808
18	931	1100	1260	750	709	791	894	1000	929	981	899	807
19	729	1150	1160	600	876	619	927	994	956	982	858	809
20	699	1140	1190	650	508	734	920	262	995	987	836	816
21	626	1170	1150	700	276	798	943	580	1020	991	821	829
22	635	1080	1150	747	361	711	960	739	1040	995	810	846
23	752	1170	1160	836	456	615	974	818	958	998	202	848
24	956	1040	1170	873	583	729	987	854	842	1000	487	855
25	1050	1010	1160	929	656	795	993	874	911	751	642	857
26	1220	677	1150	900	692	825	1030	894	1010	172	673	869
27	1210	702	1170	901	699	843	1060	911	1080	254	644	878
28	1010	861	1140	944	516	844	1080	947	532	400	218	884
29	921	1070	1130	987	---	837	1080	998	684	587	340	893
30	1170	1140	1150	997	---	358	1080	1040	889	758	321	899
31	1140	---	1170	1000	---	543	---	1070	---	229	388	---

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.0	11.0	7.0	.5	.5	5.5	11.5	15.5	17.5	20.5	22.5	23.0
2	19.0	11.5	8.5	.0	.5	7.0	10.0	16.5	17.5	21.5	23.5	23.0
3	18.0	13.0	6.0	.0	.5	8.5	8.5	15.5	17.5	23.0	24.5	23.0
4	16.0	16.0	3.5	.0	.5	6.0	8.0	13.0	19.0	24.5	25.5	23.5
5	13.0	15.5	4.0	.0	.5	5.5	10.0	14.5	20.5	24.0	26.0	23.5
6	10.5	8.5	2.5	.0	.5	6.5	11.0	16.5	21.0	22.0	25.5	24.0
7	11.0	7.0	1.0	.0	.5	8.0	13.5	18.5	20.5	20.5	25.0	22.0
8	13.0	8.0	.5	.0	.5	7.5	15.0	20.0	22.5	21.0	25.5	20.5
9	15.5	11.5	.5	.0	.5	7.5	12.5	21.0	23.0	22.0	25.5	20.5
10	17.0	12.5	.5	.0	.0	7.0	12.0	20.5	21.0	24.0	22.5	20.5
11	18.5	11.0	.5	.0	.0	7.0	12.0	15.0	20.5	24.0	22.0	20.5
12	19.0	11.0	.5	.0	.0	9.5	14.0	15.0	20.5	24.0	21.0	20.5
13	12.5	15.0	1.0	.0	.5	11.5	14.5	16.5	20.5	25.0	21.5	20.0
14	10.0	8.5	1.0	.0	.5	10.5	15.0	17.5	21.0	25.5	22.5	17.5
15	11.5	7.0	1.5	.0	1.0	9.5	16.5	18.0	21.0	25.5	20.0	16.5
16	10.5	7.0	1.5	.0	.5	10.5	18.0	18.5	21.5	25.0	20.0	16.0
17	11.0	7.0	1.5	.0	.5	11.0	19.0	19.5	21.5	24.0	22.0	16.0
18	14.0	6.5	3.0	.0	.5	12.5	18.0	20.0	22.0	23.5	23.0	17.0
19	12.0	5.0	5.5	.0	.5	13.0	18.5	20.0	22.0	22.5	23.5	17.5
20	12.5	4.5	7.5	.0	1.0	13.0	19.5	19.5	23.5	22.5	23.5	18.0
21	15.0	3.0	4.5	.5	1.5	13.0	18.5	18.5	23.5	22.5	23.0	18.0
22	19.0	5.5	3.5	1.5	2.5	13.5	18.0	17.5	23.5	23.0	21.5	16.5
23	11.0	6.5	4.0	3.0	4.0	10.5	17.0	17.5	22.5	23.5	20.5	17.0
24	10.5	7.5	2.5	1.0	4.0	7.5	17.0	16.5	21.0	---	21.5	17.5
25	14.5	8.5	2.5	.5	4.0	8.0	18.0	16.0	21.0	25.0	22.0	18.5
26	9.5	9.0	2.0	1.0	4.5	9.5	16.0	16.0	21.0	25.0	22.5	19.0
27	9.5	8.0	1.5	1.5	6.5	9.5	14.5	16.5	22.0	25.0	22.5	19.0
28	10.5	6.5	3.5	1.0	6.5	13.0	13.0	18.5	21.5	24.0	21.5	19.0
29	11.5	6.5	4.5	1.0	---	16.0	14.0	19.0	23.0	25.0	22.5	19.5
30	11.0	6.5	1.5	1.0	---	15.5	14.0	19.5	21.5	23.5	23.5	19.5
31	11.0	---	.5	.5	---	13.5	---	18.5	---	23.0	24.0	---

07187560 SHOAL CREEK NEAR GALENA, KS

LOCATION.--Lat 37°02'31", long 94°38'34" in NE¼NE¼NW¼ sec.35, T.34 S., R.25 E., Cherokee County, at downstream side of bridge on State Highway 26, 2.2 mi (3.5 km) south of Galena.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTUBER 1978 TO SEPTEMBER 1979

DATE	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, CHEM-ICAL (LOW LEVEL) (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)
OCT								
18...	92	280	7.8	14.5	--	--	150	11
MAY								
17...	400	270	8.3	22.0	11.6	3	120	5
AUG								
15...	250	283	8.3	23.0	9.8	2	130	7

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT									
18...	54	3.2	5.6	.2	2.0	139	10	12	--
MAY									
17...	46	2.2	--	--	--	115	8.0	9.0	.0
AUG									
15...	50	1.8	4.7	.2	2.0	123	9.0	10	.2

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)
OCT								
18...	8.6	179	.24	44.5	.05	.11	.08	.25
MAY								
17...	7.0	150	.20	162	.05	.05	.02	.06
AUG								
15...	9.0	167	.23	113	.09	.11	.11	.34

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)
OCT									
18...	200	0	0	--	--	0	0	10	0
MAY									
17...	100	100	--	0	0	0	0	0	0
AUG									
15...	100	0	0	20	--	0	0	10	10

DATE	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT									
18...	160	20	--	--	20	10	.0	80	50
MAY									
17...	190	30	0	0	20	0	.6	80	40
AUG									
15...	160	20	0	--	30	20	.5	300	110

As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in low-flow or flood-flow analyses, depending on the type of data collected.

Records collected at partial-record stations are presented in three tables. The first is a table of discharge measurements at low-flow partial-record stations, the second is a table of annual maximum stage and discharge at crest-stage stations, and the third is a table of stage and discharge for indicated times at flood hydrograph stations.

Low-flow partial-record stations

Measurements of streamflow in the area covered by this report made at low-flow, partial-record stations are given in the following table. Most of these measurements were made during periods of base flow when streamflow is primarily from ground-water storage. These measurements, when correlated with the simultaneous discharge of a nearby stream where continuous records are available, will give a picture of the low-flow potentiality of the stream. The column headed "Period of record" shows the water years in which measurements were made at the same, or practically the same, site.

Discharge measurements made at low-flow partial-record stations during water year 1979

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Measurements	
					Date	Discharge (ft^3/s)
		Arkansas River basin				
07141240	Pickerel Creek near Larned, KS	Lat 38°11'15", long 98°59'04", in NW¼NW¼NW¼ sec.33, T.21 S., R.15 W., Pawnee County, Hydrologic Unit 11030004, at bridge on county highway, 6.0 mi (9.7 km) east of Larned, and at mile 2.0 (3.2 km).	139	1971-79	10-30-78 9-06-79	0 0
07142200	Rattlesnake Creek near Haviland, KS	Lat 37°42'52", long 99°10'29", in SW¼NW¼NW¼ sec.10, T.27 S., R.17 W., Kiowa County, Hydrologic Unit 11030009, at county bridge, 4.0 mi (6.4 km) west and 7.0 mi (11.3 km) north of Haviland.	363	1967-79	10-30-78 9-11-79	.27 0
07142270	Rattlesnake Creek tributary near Hopewell, KS	Lat 37°50'33", long 98°59'09", in SE¼NE¼SE¼ sec.29, T.25 S., R.15 W., Stafford County, Hydrologic Unit 11030009, at bridge on county highway, 2.5 mi (4.0 km) northeast of Hopewell, and at mile 0.2 (0.3 km).	163	1971-79	10-30-78 9-06-79	0 0
07142540	Wild Horse Creek near St. John, KS	Lat 38°03'39", long 98°45'52", in SW¼NW¼SW¼ sec.9, T.23 S., R.13 W., Stafford County, Hydrologic Unit 11030009, at bridge on county highway, 1.0 mi (1.6 km) west of U.S. Highway 281, 3.5 mi (5.6 km) north of St. John, and at mile 2.2 (3.5 km).	125	1971-79	10-30-78 9-06-79	0 0
07142650	Peace Creek near Sylvia, KS	Lat 38°04'34", long 98°26'18", in SW¼NW¼SW¼ sec.4, T.23 S., R.10 W., Reno County, Hydrologic Unit 11030010, at bridge on county highway, 8.5 mi (13.7 km) northwest of Sylvia, and at mile 17.2 (27.7 km).	92.0	1971-79	10-31-78 9-11-79	.05 .16
07142670	Peace Creek near Sterling, KS	Lat 38°08'43", long 98°15'13", in SW¼SW¼SW¼ sec.7, T.22 S., R.8 W., Reno County, Hydrologic Unit 11030010, at bridge on county highway, 4.5 mi (7.2 km) southwest of Sterling, and at mile 2.8 (4.5 km).	136	1971-79	10-31-78 9-07-79	2.6 2.7
07142740	Salt Creek near Hutchinson, KS	Lat 38°04'23", long 98°02'11", in SW¼SE¼SE¼ sec.1, T.23 S., R.7 W., Reno County, Hydrologic Unit 11030010, at bridge on county road, 6.0 mi (9.7 km) west of Hutchinson, and at mile 6.5 (10.5 km).	103	1971-79	10-31-78 9-07-79	4.2 4.8
07144590	North Fork Ninnescah River near Sylvia, KS	Lat 37°55'59", long 98°24'36", in NW¼NW¼NW¼ sec.27, T.24 S., R.10 W., Reno County, Hydrologic Unit 11030014, at county bridge, 1.0 mi (1.6 km) south of Sylvia.	208	1968-79	11-01-78 9-13-79	6.1 4.9
07144620	North Fork Ninnescah River above Silver Creek near Arlington, KS	Lat 37°51'09", long 98°09'30", in NW¼NW¼NW¼ sec.25, T.25 S., R.8 W., Reno County, Hydrologic Unit 11030014, at bridge on county highway, 3.0 mi (4.8 km) southeast of Arlington, and at mile 44.7 (71.9 km).	504	1971-79	10-31-78 9-13-79	25 13
07144640	Silver Creek near Langdon, KS	Lat 37°47'54", long 98°19'59", in SW¼SW¼NW¼ sec.8, T.26 S., R.9 W., Reno County, Hydrologic Unit 11030014, at bridge on county highway, 4.0 mi (6.4 km) southwest of Langdon, and at mile 15.7 (25.3 km).	103	1971-79	11-01-78 9-12-79	2.4 .11

Discharge measurements made at low-flow partial-record stations during water year 1979--continued

Station No.	Station name	Location	Drainage area (mi²)	Period of record	Measurements Date	Measurements Discharge (ft³/s)
		Arkansas River basin--continued				
07144660	Silver Creek near Arlington, KS	Lat 37°50'30", long 98°11'47", in NE¼SE¼SE¼ sec.28, T.25 S., R.8 W., Reno County, Hydrologic Unit 11030014, at bridge on State Highway 14, 4.0 mi (6.4 km) south of Arlington, and at mile 3.9 (6.3 km).	194	1971-79	11-01-78 9-13-79	4.6 .18
07144680	Goose Creek near Arlington, KS	Lat 37°49'24", long 98°11'32", in NE¼NE¼NE¼ sec.4, T.26 S., R.8 W., Reno County, Hydrologic Unit 11030014, at bridge on State Highway 14, 5.0 mi (8.0 km) south of Arlington, and at mile 0.8 (1.3 km).	46.6	1971-79	11-01-78 9-13-79	1.5 .77
07144740	Red Rock Creek near Castleton, KS	Lat 37°53'55", long 98°00'35", in SE¼SW¼SW¼ sec.5, T.25 S., R.6 W., Reno County, Hydrologic Unit 11030014, at bridge on county highway, 3.0 mi (4.5 km) northwest of Castleton, and at mile 2.8 (4.5 km).	61.2	1971-79	10-31-78 9-13-79	.75 .55
07144890	South Fork Ninnescah River at Pratt, KS	Lat 37°38'03", long 98°44'15", in NW¼SW¼SW¼ sec.3, T.28 S., R.13 W., Pratt County, Hydrologic Unit 11030015, at bridge on U.S. Highway 281, at Pratt, and at mile 136.4 (219.5 km).	97.1	1971-79	11-01-78 9-12-79	10 8.1
07145130	South Fork Ninnescah River near Calista, KS	Lat 37°38'45", long 98°17'12", in SW¼SE¼SE¼ sec.34, T.27 S., R.9 W., Kingman County, Hydrologic Unit 11030015, at bridge on U.S. Highway 54, 0.5 mi (0.8 km) northwest of Calista, and at mile 103.2 (166.0 km).	374	1971-76, 1978-79	11-03-78 9-13-79	84 65
07145220	Smoots Creek near Murdock, KS	Lat 37°38'13", long 97°54'06", in SE¼SE¼SE¼ sec.6, T.28 S., R.5 W., Kingman County, Hydrologic Unit 11030015, at bridge on county highway, 2.5 mi (4.0 km) northeast of Murdock, and at mile 6.6 (10.6 km).	142	1971-79	11-03-78 9-13-79	.66 .15
07148200	Mule Creek near Wilmore, KS	Lat 37°16'55", long 99°02'34", in SE¼SW¼SE¼ sec.3, T.32 S., R.16 W., Comanche County, Hydrologic Unit 11060002, at bridge on U.S. Highway 160, 10.0 mi (16.1 km) southeast of Wilmore.	129	1954-79	11-02-78 9-11-79	6.6 3.7
07148580	Turkey Creek near Croft, KS	Lat 37°29'52", long 98°56'56", in NE¼NE¼NW¼ sec.27, T.29 S., R.15 W., Pratt County, Hydrologic Unit 11060003, at bridge on county highway, 2.5 mi (4.0 km) east of Croft, and at mile 9.6 (15.4 km).	26.7	1971-79	11-02-78 9-11-79	3.2 3.1
07148600	Medicine Lodge River at Sun City, KS	Lat 37°22'13", long 98°54'53", in NW¼SE¼SE¼ sec.2, T.31 S., R.15 W., Barber County, Hydrologic Unit 11060003, at bridge, 0.5 mi (0.8 km) south of Sun City.	335	1954-79	11-02-78 9-11-79	30 13
07148900	Elm Creek at Medicine Lodge, KS	Lat 37°16'25", long 98°34'28", in NW¼NW¼SE¼ sec.12, T.32 S., R.12 W., Barber County, Hydrologic Unit 11060003, at bridge on U.S. Highway 160 at Medicine Lodge.	167	1955-79	11-02-78 9-12-79	16 2.9
07151200	Chikaskia River near Zenda, KS	Lat 37°28'23", long 98°16'55", in NE¼SE¼SE¼ sec.34, T.29 S., R.9 W., Kingman County, Hydrologic Unit 11060005, at bridge on county highway, 2.0 mi (3.2 km) north of Zenda, and at mile 127.7 (205.5 km).	89.9	1971-79	11-03-78 9-12-79	13 4.8
07151290	Sand Creek near Zenda, KS	Lat 37°24'41", long 98°16'55", in NE¼NE¼NE¼ sec.27, T.30 S., R.9 W., Kingman County, Hydrologic Unit 11060005, at bridge on county highway, 2.0 mi (3.2 km) south of Zenda, and at mile 5.9 (9.5 km).	136	1971-79	11-03-78 9-12-79	5.6 1.2

Crest-stage partial-record stations

The following table contains annual maximum discharges for crest-stage stations. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower floods may have been obtained but is not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

Annual maximum discharge at crest-stage partial-record stations

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft^3/s)
		Arkansas River basin					
07138600	Whitewoman Creek tributary near Selkirk, KS	Lat 38°31'30", long 101°37'16", in SW¼SW¼ sec.34, T.17 S., R.39 W., Greeley County, Hydrologic Unit 11030002, at downstream side side of county highway bridge, 5.6 mi (9.0 km) northwest of Selkirk.	38.0 (7.59)	1957-79	5-30-79	11.58	300
07139700	Arkansas River tributary near Dodge City, KS	Lat 37°42'52", long 100°00'53", in SE¼NE¼ sec.11, T.27 S., R.25 W., Ford County, Hydrologic Unit 11030004, at downstream side of culvert on U.S. Highway 283, 2.6 mi (4.2 km) south of Dodge City. Prior to Mar. 1, 1959, above culvert 175 ft (53 m) north of present site and at same datum. Records for 1957-58 discredited.	8.66	1957-79	7-23-79	13.12	200
07140300	Whitewoman Creek near Bellefont, KS	Lat 37°55'26", long 99°38'31", in SW¼NW¼ sec.33, T.24 S., R.21 W., Hodgeman County, Hydrologic Unit 11030004, at downstream side of county highway bridge, 3.5 mi (5.6 km) northeast of Bellefont.	14.0	1957-79	7-16-79	12.55	180
07140600	Pawnee River tributary near Kalvesta, KS	Lat 38°03'42", long 100°21'00", in SE¼SW¼SW¼ sec.12, T.23 S., R.28 W., Finney County, Hydrologic Unit 11030005, at downstream side of bridge on U.S. Highway 156, 3.4 mi (5.5 km) west of Kalvesta.	6.89	1957-79	7-23-79	11.42	700
07141600	Long Branch Creek near Ness City, KS	Lat 38°27'01", long 99°52'50", in NE¼NE¼ sec.32, T.18 S., R.23 W., Ness County, Hydrologic Unit 11030007, below bridge on State Highway 96, 1.2 mi (1.9 km) east of Ness City.	28.0	1957-79	7-25-79	13.60	330
07141800	Otter Creek near Rush Center, KS	Lat 38°24'16", long 99°18'26", in NW¼NW¼ sec.15, T.19 S., R.18 W., Rush County, Hydrologic Unit 11030008, at downstream side of bridge on U.S. Highway 183, 4.3 mi (6.9 km) south of Rush Center. Prior to Oct. 1, 1965, at site 100 ft (30 m) downstream at present datum.	17.0	1957-79	2-22-79	14.57	375
07142100	Rattlesnake Creek tributary near Mullinville, KS	Lat 37°35'11", long 99°25'17", in SE¼SW¼ sec.20, T.28 S., R.19 W., Kiowa County, Hydrologic Unit 11030009, at downstream end of culvert on U.S. Highway 54, 2.9 mi (4.7 km) east of Mullinville.	10.3	1957-79	7-25-79	11.35	450
07142700	Salt Creek near Partridge, KS	Lat 38°02'22", long 98°05'13", in SW¼NW¼ sec.22, T.23 S., R.7 W., Reno County, Hydrologic Unit 11030010, at downstream side of county highway bridge, 5.0 mi (8.0 km) north of Partridge.	85.0 (72.0)	1957-79	3-18-79	16.49	1,050
07143100	Little Cheyenne Creek tributary near Claflin, KS	Lat 38°27'25", long 98°32'08", in NE¼SE¼ sec.28, T.18 S., R.11 W., Barton County, Hydrologic Unit 11030011, at culvert on county highway, 4.7 mi (7.7 km) south of Claflin. Published as "Cheyenne Creek tributary" 1957-70.	1.48	1957-79	3-18-79	12.20	65
07143600	Little Arkansas River near Little River, KS	Lat 38°24'50", long 98°01'00", in NW¼SW¼ sec.8, T.19 S., R.6 W., Rice County, at Hydrologic Unit 11030012, at downstream side of county highway bridge, and 1.0 mi (1.6 km) northwest of Little River.	71	1960-71‡, 1972-79	3-18-79	15.87	780

‡ Operated as a continuous-record gaging station.

Note.--Figures of drainage area in parentheses show approximate contributing area included in total area.

Annual maximum discharge at crest-stage partial-record stations--continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft^3/s)
		Arkansas River basin--continued					
07144900	South Fork Ninnescah River tributary near Pratt, KS	Lat 38°40'30", long 98°43'23", NE¼NE¼ sec.27, T.27 S., R.13 W., Pratt County, Hydrologic Unit 11030015, at downstream end of culvert on county highway, 2.4 mi (3.9 km) northeast of Pratt.	1.48	1957-79	5-10-79	13.71	320
07145300	Clear Creek near Garden Plain, KS	Lat 37°39'48", long 97°39'22", in NE¼NW¼ sec.33, T.27 S., R.3 W., Sedgwick County, Hydrologic Unit 11030016, at downstream side of bridge on U.S. Highway 54, 1.5 mi (2.4 km) northeast of Garden Plain.	5.03	1957-79	3-18-79	14.65	1,150
07145800	Antelope Creek tributary near Dalton, KS	Lat 37°16'34", long 97°17'01", in SW¼SE¼ sec.11, T.32 S., R.1 E., Sumner County, Hydrologic Unit 11030013, upstream from culvert on U.S. Highway 160, 0.8 mi (1.3 km) northwest of Dalton. Published as "Avon Creek tributary" 1957-70.	0.41	1957-79	3-03-79	12.05	48
07147020	Whitewater River tributary near Towanda, KS	Lat 37°51'03", long 97°03'37", in NE¼NE¼ sec.26, T.25 S., R.3 E., Butler County, Hydrologic Unit 11030017, at culvert on county highway, 5.0 mi (8.0 km) northwest of Towanda.	0.17	1963-79	5-19-78 6-08-79	15.92 16.30	220* 230
07147990	Cedar Creek tributary near Cambridge, KS	Lat 37°19'19", long 96°37'33", in NE¼NE¼SE¼ sec.26, T.31 S., R.7 E., Cowley County, Hydrologic Unit 11060001, at downstream side of bridge on U.S. Highway 160, 0.5 mi (0.8 km) upstream from Cedar Creek and 2.1 mi (3.4 km) northeast of Cambridge. Published as "Grouse Creek tributary" 1961-63.	2.41	1961-79	3-03-79	10.64	38
07148100	Grouse Creek near Dexter, KS	Lat 37°13'38", long 96°42'44", in NW¼NW¼ sec.31, T.32 S., R.7 E., Cowley County, Hydrologic Unit 11060001, on right bank at downstream side of county highway bridge, 3.2 mi (5.1 km) north of Dexter.	170	1960-79	6-10-79	14.85	3,500
07151600	Rush Creek near Harper, KS	Lat 37°15'12", long 98°04'47", in NE¼NE¼ sec.21, T.32 S., R.7 W., Harper County, Hydrologic Unit 11060001, at downstream side of county highway bridge, 3.5 mi (5.6 km) southwest of Harper.	12.0	1957-79	6-10-79	14.66	1,350
07155900	North Fork Cimarron River tributary near Elkhart, KS	Lat 37°11'27", long 101°53'54", in NW¼SW¼ sec.9, T.33 S., R.42 W., Morton County, Hydrologic Unit 11040003, at downstream side of culvert on State Highway 27, 13.0 mi (20.9 km) north of Elkhart.	75 (10.0)	1957-79	8-26-79	11.77	80
07156600	Cimarron River tributary near Moscow, KS	Lat 37°20'07", long 101°03'00", in NW¼SW¼ sec.20, T.31 S., R.34 W., Seward County, Hydrologic Unit 11040006, at downstream side of county highway bridge, 8.8 mi (14.2 km) northeast of Moscow.	13.0 (8.00)	1957-79	6-09-79	12.23	570
07156700	Cimarron River tributary near Satanta, KS	Lat 37°16'15", long 100°55'36", in NW¼NE¼ sec.17, T.32 S., R.33 W., Seward County, Hydrologic Unit 11040006, at downstream side of bridge on county highway, 12.0 mi (19.3 km) southeast of Satanta.	2.41	1957-79	5-21-79	11.13	140
07157100	Crooked Creek near Copeland, KS	Lat 37°33'55", long 100°33'15", in SE¼SW¼ sec.36, T.28 S., R.30 W., Gray County, Hydrologic Unit 11040007, at downstream side of culvert on U.S. Highway 56, 4.4 mi (7.1 km) northeast of Copeland. Prior to Sept. 15, 1960, at downstream side of bridge, just downstream of present site and at same datum.	44.0	1957-79	7-19-79	12.15	96

* Corrected.

Note.--Figures of drainage area in parentheses show approximate contributing area included in total area.

Annual maximum discharge at crest-stage partial-record stations--continued

Station No.	Station name	Location	Drainage area (mi²)	Period of record	Annual maximum Date	Annual maximum Gage height (feet)	Annual maximum Discharge (ft³/s)
		Arkansas River basin--continued					
07157400	Crooked Creek tributary at Meade, KS	Lat 37°17'47", long 100°20'22", in NE¼NW¼ sec.2, T.32 S., R.28 W., Meade County, Hydrologic Unit 11040007, at downstream side of culvert on State Highway 23, 0.8 mi (1.3 km) north of Meade.	6.37	1957-79	5-21-79	13.68	780
07157700	Kiger Creek near Ashland, KS	Lat 37°11'36", long 99°34'48", in SW¼SE¼ sec.3, T.33 S., R.24 W., Clark County, Hydrologic Unit 11040008, above bridge on U.S. Highway 160, 8.2 mi (13.2 km) west of Ashland.	34.0	1957-79	7-20-79	13.21	450
07166200	Sandy Creek near Yates Cunter, KS	Lat 37°50'47", long 95°50'07", in SE¼NE¼ sec.26, T.25 S., R.14 E., Woodson County, Hydrologic Unit 11070101, at cownstream side of bridge on U.S. Highway 54, 6.0 mi (9.7 km) southwest of Yates Center.	6.80	1957-79	6-08-79	15.37	740
07170800	Mud Creek near Mound Valley, KS	Lat 37°11'38", long 95°26'52", in NW¼NW¼ sec.9, T.33 S., R.18 E., Labette County, Hydrologic Unit 11070103, at downstream side of bridge on State Highway 96, 2.6 mi (4.2 km) southwest of Mound Valley.	4.22	1957-79	3-18-79	13.93	500
07171700	Spring Branch near Cedar Vale, KS	Lat 37°06'48", long 96°27'29", in NW¼NE¼ sec.7, T.34 S., R.9 E., Chautauqua County, Hydrologic Unit 11070106, at downstream side of bridge on U.S. Highway 166, 2.3 mi (3.7 km) northeast of Cedar Vale. Published as "Spring Creek tributary near Cedar Vale, KS" 1957-60, "Spring Creek near Cedar Vale" 1961-65.	3.10	1957-79	11-26-79	10.96	190
07171800	Cedar Creek tributary near Hooser, KS	Lat 37°06'27", long 96°34'27", in SW¼NE¼ sec.7, T.34 S., R.8 E., Cowley County, Hydrologic Unit 11070106, above culvert on U.S. Highway 166, 3.9 mi (6.3 km) southeast of Hooser.	0.56	1957-79	1979	--	0
07180300	Spring Creek tributary near Florence, KS	Lat 38°11'00", long 96°54'49", in NW¼SW¼NW¼ sec.32, T.21 S., R.5 E., Marion County, Hydrologic Unit 11070202, above culvert on U.S. Highway 77, 4.1 mi (6.6 km) southeast of Florence.	0.55	1957-79	6-08-79	14.11	235
07181500	Middle Creek near Elmdale, KS	Lat 38°23'36", long 96°43'04", in SE¼SW¼ sec.13, T.19 S., R.6 E., Chase County, Hydrologic Unit 11070203, at downstream side of county highway bridge, 4.0 mi (6.4 km) northwest of Elmdale and at mile 8.2 (13.2 km).	92.0	1939-50‡, 1960-79	3-18-79	c8.8	1,050
07182600	North Big Creek near Burlington, KS	Lat 38°06'37", long 95°45'26", in NW¼NW¼ sec.27, T.22 S., R.15 E., Coffey County, Hydrologic Unit 11070204, at downstream side of county highway bridge, 5.9 mi (9.5 km) southwest of Burlington.	46.0	1957-79	7-06-79	21.34	5,200
07183800	Limestone Creek near Beulah, KS	Lat 37°24'12", long 94°53'16", in NE¼SE¼ sec.28, T.30 S., R.23 E., Crawford County, Hydrologic Unit 11070205, at downstream side of county highway bridge, 4.0 mi (6.4 km) southwest of Beulah.	12.0	1957-79	5-20-79	18.32	3,100
07184070	Deer Creek near Hallowell KS	Lat 37°13'50", long 94°59'41", in NE¼NE¼SE¼ sec.28, T.32. S., R.22 E., Cherokee County, Hydrologic Unit 11070205, at downstream side of county road bridge, 3.6 mi (5.8 km) north of Hallowell.	7.0	1977-79	5-20-79	13.76	233

‡ Operated as a continuous-record gaging station.
c From floodmark.

Annual maximum discharge at crest-stage partial-record stations--continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft^3/s)
		Arkansas River basin--continued					
07184220	Cherry Creek near West Mineral, KS	Lat 37°14'14", long 94°55'04", in NE¼NW¼NW¼ sec.29, T.32 S., R.23 E., Cherokee County, Hydrologic Unit 11070205, at downstream side of county road bridge 3.0 mi (4.8 km) south of West Mineral. Discontinued June 21, 1979.	27.0	1977-79	5-20-79	19.51	1,660
07184500	Labette Creek near Oswego, KS	Lat 37°11'30", long 95°11'30", in NW¼NW¼ sec.11, T.33 S., R.20 E., Labette County, Hydrologic Unit 11070205, at downstream side of bridge on U.S. Highway 96, 2.0 mi (3.2 km) upstream from St. Louis - San Francisco Railway bridge, 5.0 mi (8.0 km) northwest of Oswego and at mile 18.8 (30.2 km).	211	1939-45‡, 1961-79	5-20-79	17.32	7,400
07186010	Second Cow Creek at Pittsburg, KS	Lat 37°23'49", long 94°44'30", in SW¼SW¼SW¼ sec.25, T.30 S., R.24 E., Crawford County, Hydrologic Unit 11070207, at downstream side of county road bridge, 2.2 mi (3.5 km) southwest of Pittsburg.	60.0	1977-79	5-20-79	20.14	1,790
07186050	Brush Creek near Weir, KS	Lat 37°18'32", long 94°42'19", in NE¼NE¼NE¼ sec.31, T.31 S., R.25 E., Cherokee County, Hydrologic Unit 11070207, at upstream side of U.S. 69 highway bridge, 4.0 mi (6.4 km) east of Weir.	30.0	1977-79	5-20-79	20.86	2,020

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‡ Operated as a continuous-record gaging station.

Flood hydrograph stations

The following table contains stage and discharge for indicated times at flood hydrograph stations. Records of stage above the elevation of the base discharge are obtained from a water-stage recorder. The base is selected so that an average of about three floods a year can be presented. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak discharge or by current meter. The maximum discharge for each water year is given although it may not be above the base.

ARKANSAS RIVER BASIN

07139000 ARKANSAS RIVER AT GARDEN CITY, KS

LOCATION.--Lat 37°57'21", long 100°52'37", in NW¼SE¼NW¼ sec.19, T.24 S., R.32 W., Finney County, at downstream side of bridge on U.S. Highway 83, 0.5 mi (0.8 km) south of Garden City, and at mile 1,024.2 (1,647.9 km). DRAINAGE AREA.--27,071 mi^2 (70,114 km^2), of which about 2,368 mi^2 (6,133 km^2) is probably noncontributing. PERIOD OF RECORD.--June 1922 to June 1970, continuous record. July 1970 to current year, flood hydrograph record. CURRENT YEAR MAXIMUM.--Discharge 116 ft^3/s (3.29 m^3/s) Aug. 27.

Peak discharge above base of 600 ft^3/s (17.0 m^3/s).--No peak above base.

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, CHEMICAL (LOW LEVEL) (MG/L)	ACIDITY TOTAL HEATED (MG/L AS H)
ARKANSAS RIVER BASIN								
07142200 - RATTLESNAKE C NR HAVILAND, KS (LAT 37 42 52 LONG 099 10 29)								
OCT , 1978								
30...	.27	260	8.4	15.0	7.6	--	--	--
07142575 - RATTLESNAKE C NR ZENITH, KS (LAT 38 06 01 LONG 098 30 32)								
OCT , 1978								
31...	6.5	4610	7.5	15.0	5.9	--	--	--
SEP , 1979								
11...	6.4	5810	7.6	26.0	--	--	--	--
07142650 - PEACE C NR SYLVIA, KS (LAT 38 04 34 LONG 098 26 18)								
OCT , 1978								
31...	.05	3650	7.8	14.0	3.0	--	--	--
SEP , 1979								
11...	.16	3730	7.7	21.0	--	--	--	--
07142670 - PEACE C NR STERLING, KS (LAT 38 08 43 LONG 098 15 13)								
OCT , 1978								
31...	2.6	3810	8.0	17.0	2.4	--	--	--
SEP , 1979								
07...	2.7	4360	7.8	26.0	--	--	--	--
07142740 - SALT C NR HUTCHINSON, KS (LAT 38 04 23 LONG 098 02 11)								
OCT , 1978								
31...	4.2	4170	7.7	18.0	3.0	--	--	--
SEP , 1979								
07...	4.8	4550	7.6	20.5	--	--	--	--
07144550 - ARKANSAS R AT DERBY, KS (LAT 37 32 34 LONG 097 16 31)								
NOV , 1978								
10...	--	1860	7.8	--	2.0	--	--	--
SEP , 1979								
21...	--	1740	7.9	23.5	--	--	--	--
07144590 - NF NINNESCAH R NR SYLVIA, KS (LAT 37 55 59 LONG 098 24 36)								
NOV , 1978								
01...	6.1	1620	8.3	12.0	6.3	--	--	--
SEP , 1979								
13...	4.9	1870	8.0	19.5	--	--	--	--
07144620 - NF NINNESCAH R AB SILVER C NR ARLINGTON, KS (LAT 37 51 09 LONG 098 09 30)								
OCT , 1978								
31...	25	1120	8.0	17.0	8.9	--	--	--
SEP , 1979								
13...	13	1070	8.3	22.5	--	--	--	--
07144640 - SILVER C NR LANGDON, KS (LAT 37 47 54 LONG 098 19 59)								
NOV , 1978								
01...	2.4	1950	7.6	17.0	4.0	--	--	--
SEP , 1979								
12...	.11	1380	8.0	23.0	--	--	--	--
07144660 - SILVER C NR ARLINGTUN, KS (LAT 37 50 30 LONG 098 11 47)								
NOV , 1978								
01...	4.6	1680	8.1	14.0	4.6	--	--	--
SEP , 1979								
13...	.18	1690	8.0	28.0	--	--	--	--

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	ACIDITY (MG/L AS CACO3)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	ALKA- LINITY (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	SULFATE DIS- SOLVED (MG/L AS SO4)
ARKANSAS RIVER BASIN									
07142200 - RATTLESNAKE C NR HAVILAND, KS (LAT 37 42 52 LONG 099 10 29)									
OCT , 1978									
30...	--	130		139	46	4.2	8.0	4.0	11
07142575 - RATTLESNAKE C NR ZENITH, KS (LAT 38 06 01 LONG 098 30 32)									
OCT , 1978									
31...	--	320	140	180	91	23	980	5.0	160
SEP , 1979									
11...	--	300	160	140	78	25	1100	6.0	180
07142650 - PEACE C NR SYLVIA, KS (LAT 38 04 34 LONG 098 26 18)									
OCT , 1978									
31...	--	390	120	271	120	19	670	6.0	100
SEP , 1979									
11...	--	300	44	250	88	18	680	6.0	74
07142670 - PEACE C NR STERLING, KS (LAT 38 08 43 LONG 098 15 13)									
OCT , 1978									
31...	--	270	130	139	82	17	790	4.0	120
SEP , 1979									
07...	--	300	130	170	88	20	800	4.0	120
07142740 - SALT C NR HUTCHINSON, KS (LAT 38 04 23 LONG 098 02 11)									
OCT , 1978									
31...	--	360	140	221	110	23	840	5.0	160
SEP , 1979									
07	--	350	130	220	99	24	810	6.0	160
07144550 - ARKANSAS R AT DERBY, KS (LAT 37 32 34 LONG 097 16 31)									
NOV , 1978									
10...	--	320	120	189	91	22	320	8.0	150
SEP , 1979									
21...	--	290	130	160	83	20	240	8.0	150
07144590 - NF NINNESCAH R NR SYLVIA, KS (LAT 37 55 59 LONG 098 24 36)									
NOV , 1978									
01...	--	250	52	205	82	12	280	4.0	74
SEP , 1979									
13...	--	220	51	170	72	11	300	4.0	78
07144620 - NF NINNESCAH R AB SILVER C NR ARLINGTON, KS (LAT 37 51 09 LONG 098 09 30)									
OCT , 1978									
31...	--	210	26	189	70	9.1	190	4.0	56
SEP , 1979									
13...	--	140	10	130	42	7.6	180	3.0	45
07144640 - SILVER C NR LANGDON, KS (LAT 37 47 54 LONG 098 19 59)									
NOV , 1978									
01...	--	270	96	180	85	15	340	3.0	78
SEP , 1979									
12...	--	170	28	140	51	11	200	3.0	51
07144660 - SILVER C NR ARLINGTON, KS (LAT 37 50 30 LONG 098 11 47)									
NOV , 1978									
01...	--	220	65	164	67	14	310	3.0	78
SEP , 1979									
13...	--	180	29	150	51	13	280	4.0	81

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
ARKANSAS RIVER BASIN								
07142200 - RATTLESNAKE C NR HAVILAND, KS (LAT 37 42 52 LONG 099 10 29)								
OCT , 1978								
30...	8.0	.3	15	180	182	--	--	.03
07142575 - RATTLESNAKE C NR ZENITH, KS (LAT 38 06 01 LONG 098 30 32)								
OCT , 1978								
31...	1600	.3	8.0	--	2920	--	--	.02
SEP , 1979								
11...	1800	.6	13	--	3250	--	--	.07
07142650 - PEACE C NR SYLVIA, KS (LAT 38 04 34 LONG 098 26 18)								
OCT , 1978								
31...	1100	.3	7.0	--	2180	--	.10	.04
SEP , 1979								
11...	1100	.6	5.0	--	2080	--	--	.09
07142670 - PEACE C NR STERLING, KS (LAT 38 08 43 LONG 098 15 13)								
OCT , 1978								
31...	1300	.3	6.0	--	2410	--	--	.02
SEP , 1979								
07...	1300	.5	9.0	--	2400	--	--	.11
07142740 - SALT C NR HUTCHINSON, KS (LAT 38 04 23 LONG 098 02 11)								
OCT , 1978								
31...	1300	.1	11	--	2610	--	--	.03
SEP , 1979								
07...	1300	.6	10	--	2500	--	--	.07
07144550 - ARKANSAS R AT DERBY, KS (LAT 37 32 34 LONG 097 16 31)								
NOV , 1978								
10...	460	.6	9.0	--	1200	--	--	1.8
SEP , 1979								
21...	370	.7	9.0	990	992	--	--	1.2
07144590 - NF NINNESCAH R NR SYLVIA, KS (LAT 37 55 59 LONG 098 24 36)								
NOV , 1978								
01...	420	.3	17	--	1020	--	--	.05
SEP , 1979								
13...	450	.5	17	--	1050	--	--	.04
07144620 - NF NINNESCAH R AB SILVER C NR ARLINGTON, KS (LAT 37 51 09 LONG 098 09 30)								
OCT , 1978								
31...	260	.4	14	727	724	--	--	.06
SEP , 1979								
13...	240	.5	4.0	599	601	--	--	.04
07144640 - SILVER C NR LANGDON, KS (LAT 37 47 54 LONG 098 19 59)								
NOV , 1978								
01...	550	.2	16	--	1200	--	--	.03
SEP , 1979								
12...	320	.5	20	766	752	--	--	.05
07144660 - SILVER C NR ARLINGTON, KS (LAT 37 50 30 LONG 098 11 47)								
NOV , 1978								
01...	470	.4	9.0	--	1050	--	--	.04
SEP , 1979								
13...	400	.7	10	901	929	--	--	.07

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, CHEMICAL (LOW LEVEL) (MG/L)	ACIDITY TOTAL HEATED (MG/L AS H)
ARKANSAS RIVER BASIN								
07144680 - GOOSE C NR ARLINGTON, KS (LAT 37 49 24 LONG 098 11 32)								
NOV , 1978								
01...	1.5	860	7.9	19.0	1.6	--	--	--
SEP , 1979								
13...	.77	1090	8.6	26.0	--	--	--	--
07144740 - RED ROCK C NR CASTLETON, KS (LAT 37 53 55 LONG 098 00 35)								
OCT , 1978								
31...	.75	580	8.3	17.0	3.0	--	--	--
SEP , 1979								
13...	.60	600	8.0	20.0	--	--	--	--
07144890 - SF NINNESCAH R AT PRATT, KS (LAT 37 38 03 LONG 098 44 15)								
NOV , 1978								
01...	10	410	8.2	14.0	17	--	--	--
SEP , 1979								
12...	8.1	420	7.9	21.0	--	--	--	--
07145130 - SF NINNESCAH R NR CALISTA, KS (LAT 37 38 45 LONG 098 17 12)								
NOV , 1978								
03...	84	1440	8.1	18.0	8.2	--	--	--
SEP , 1979								
13...	65	1690	8.0	23.5	--	--	--	--
07145220 - SHOOTS C NR MURDOCK, KS (LAT 37 38 13 LONG 097 54 06)								
NOV , 1978								
03...	.66	600	8.5	15.5	1.2	--	--	--
SEP , 1979								
13...	.15	620	8.6	21.0	--	--	--	--
07145700 - SLATE C AT WELLINGTON, KS (LAT 37 15 00 LONG 097 24 12)								
NOV , 1978								
07...	2.6	1000	8.1	15.0	5.6	--	--	--
SEP , 1979								
19...	1.5	1190	7.9	24.0	--	--	--	--
07148200 - MULE C NR WILMORE, KS (LAT 37 16 55 LONG 099 02 34)								
NOV , 1978								
02...	6.6	520	8.6	21.0	2.6	--	--	--
SEP , 1979								
11...	3.7	620	8.0	23.0	--	--	--	--
07148580 - TURKEY C NR CROFT, KS (LAT 37 29 52 LONG 098 56 56)								
NOV , 1978								
02...	3.2	320	8.3	17.0	.50	--	--	--
SEP , 1979								
11...	3.1	490	7.9	22.0	--	--	--	--
07148600 - MEDICINE LODGE R AT SUN CITY, KS (LAT 37 22 13 LONG 098 54 53)								
NOV , 1978								
02...	30	660	8.5	18.5	3.6	--	--	--
SEP , 1979								
11...	13	820	7.9	27.0	--	--	--	--
07148900 - ELM C AT MEDICINE LODGE, KS (LAT 37 16 25 LONG 098 34 28)								
NOV , 1978								
02...	16	440	8.3	18.5	1.9	--	--	--
SEP , 1979								
12...	2.9	450	8.0	30.0	--	--	--	--

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	ACIDITY (MG/L AS CACO3)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	ALKA-LINITY (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	SULFATE DIS-SOLVED (MG/L AS SO4)
ARKANSAS RIVER BASIN									
07144680 - GOOSE C NR ARLINGTON, KS (LAT 37 49 24 LONG 098 11 32)									
NOV , 1978 01...	--	200	24	180	67	9.0	120	2.0	51
SEP , 1979 13...	--	180	22	160	56	9.8	160	2.0	64
07144740 - RED ROCK C NR CASTLETON, KS (LAT 37 53 55 LONG 098 00 35)									
OCT , 1978 31...	--	240	2	238	69	16	50	4.0	57
SEP , 1979 13...	--	210	0	210	62	13	44	5.0	54
07144890 - SF NINNESCAH R AT PRATT, KS (LAT 37 38 03 LONG 098 44 15)									
NOV , 1978 01...	--	170	4	164	59	5.1	27	4.0	18
SEP , 1979 12...	--	160	2	150	56	4.0	24	4.0	15
07145130 - SF NINNESCAH R NR CALISTA, KS (LAT 37 38 45 LONG 098 17 12)									
NOV , 1978 03...	--	230	50	180	80	7.9	250	3.0	57
SEP , 1979 13...	--	210	56	160	69	9.7	270	3.0	61
07145220 - SMOOTS C NR MURDOCK, KS (LAT 37 38 13 LONG 097 54 06)									
NOV , 1978 03...	--	300	72	230	70	30	36	2.0	110
SEP , 1979 13...	--	250	69	180	53	28	36	2.0	110
07145700 - SLATE C AT WELLINGTON, KS (LAT 37 15 00 LONG 097 24 12)									
NOV , 1978 07...	--	340	180	164	80	34	82	11	140
SEP , 1979 19...	--	260	120	130	61	25	110	14	140
07148200 - MULE C NR WILMORE, KS (LAT 37 16 55 LONG 099 02 34)									
NOV , 1978 02...	--	280	98	180	91	12	16	3.0	120
SEP , 1979 11...	--	300	120	180	100	11	16	3.0	140
07148580 - TURKEY C NR CROFT, KS (LAT 37 29 52 LONG 098 56 56)									
NOV , 1978 02...	--	160	0	156	53	5.8	14	2.0	14
SEP , 1979 11...	--	160	6	150	54	6.1	17	3.0	15
07148600 - MEDICINE LODGE R AT SUN CITY, KS (LAT 37 22 13 LONG 098 54 53)									
NOV , 1978 02...	--	270	80	189	83	15	44	4.0	100
SEP , 1979 11...	--	300	120	180	91	18	59	4.0	160
07148900 - ELM C AT MEDICINE LODGE, KS (LAT 37 16 25 LONG 098 34 28)									
NOV , 1978 02...	--	200	20	180	64	8.8	27	3.0	38
SEP , 1979 12...	--	170	28	140	56	7.9	28	3.0	45

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
ARKANSAS RIVER BASIN								
07144680 - GOOSE C NR ARLINGTON, KS (LAT 37 49 24 LONG 098 11 32)								
NOV , 1978								
01...	170	.2	16	558	555	--	--	.01
SEP , 1979								
13...	210	.6	16	612	617	--	--	.04
07144740 - RED ROCK C NR CASTLETON, KS (LAT 37 53 55 LONG 098 00 35)								
OCT , 1978								
31...	38	.3	14	400	401	--	--	.02
SEP , 1979								
13...	34	.6	17	364	361	--	--	.09
07144890 - SF NINNESCAH R AT PRATT, KS (LAT 37 38 03 LONG 098 44 15)								
NOV , 1978								
01...	35	.3	22	280	280	--	--	.06
SEP , 1979								
12...	32	.3	23	260	261	--	--	.07
07145130 - SF NINNESCAH R NR CALISTA, KS (LAT 37 38 45 LONG 098 17 12)								
NOV , 1978								
03...	370	.2	19	909	907	--	--	.11
SEP , 1979								
13...	420	.4	14	948	949	--	--	.08
07145220 - SMOOTS C NR MURDOCK, KS (LAT 37 38 13 LONG 097 54 06)								
NOV , 1978								
03...	30	.3	3.0	416	419	--	--	.00
SEP , 1979								
13...	32	.6	11	383	383	--	--	.02
07145700 - SLATE C AT WELLINGTON, KS (LAT 37 15 00 LONG 097 24 12)								
NOV , 1978								
07...	130	.8	11	658	645	--	--	2.6
SEP , 1979								
19...	130	1.4	14	658	637	--	--	7.8
07148200 - MULE C NR WILMORE, KS (LAT 37 16 55 LONG 099 02 34)								
NOV , 1978								
02...	16	.5	22	382	389	--	--	.00
SEP , 1979								
11...	16	.6	27	429	423	--	--	.04
07148580 - TURKEY C NR CROFT, KS (LAT 37 29 52 LONG 098 56 56)								
NOV , 1978								
02...	14	.2	23	230	232	--	--	.02
SEP , 1979								
11...	19	.3	25	243	244	--	--	.04
07148600 - MEDICINE LODGE R AT SUN CITY, KS (LAT 37 22 13 LONG 098 54 53)								
NOV , 1978								
02...	54	.3	19	436	435	--	--	.02
SEP , 1979								
11...	72	.6	22	535	536	--	--	.03
07148900 - ELM C AT MEDICINE LODGE, KS (LAT 37 16 25 LONG 098 34 28)								
NOV , 1978								
02...	35	.4	17	300	303	--	--	.01
SEP , 1979								
12...	36	.4	17	281	283	--	--	.02

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, CHEM-ICAL (LOW LEVEL) (MG/L)	ACIDITY TOTAL HEATED (MG/L AS H)
ARKANSAS RIVER BASIN								
07151200 - CHIKASKIA R NR ZENDA, KS (LAT 37 28 23 LONG 098 16 55)								
NOV , 1978 03...	13	430	8.6	18.0	1.8	--	--	--
SEP , 1979 12...	4.8	430	8.0	2.5	--	--	--	--
07151290 - SAND C NR ZENDA, KS (LAT 37 24 41 LONG 098 16 55)								
NOV , 1978 03...	5.6	380	8.5	18.0	1.1	--	--	--
SEP , 1979 12...	1.2	440	8.1	17.0	--	--	--	--
07151400 - CHIKASKIA R AT RAGO, KS (LAT 37 26 55 LONG 098 04 16)								
SEP , 1979 18...	2.8	550	8.4	19.5	--	--	--	--
07151500 - CHIKASKIA R NR CORBIN, KS (LAT 37 07 44 LONG 097 36 04)								
NOV , 1978 07...	40	550	8.7	13.0	6.0	--	--	--
SEP , 1979 18...	4.5	650	8.3	27.5	--	--	--	--
07151650 - BLUFF C AT ANTHONY, KS (LAT 37 09 10 LONG 098 05 00)								
NOV , 1978 03...	.01	710	8.5	19.0	1.7	--	--	--
SEP , 1979 14...	.27	670	8.5	22.0	--	--	--	--
07151800 - BLUFF C NR CALDWELL, KS (LAT 37 00 51 LONG 097 42 35)								
NOV , 1978 06...	2.5	740	8.3	12.0	1.4	--	--	--
SEP , 1979 18...	2.0	820	8.0	22.0	--	--	--	--
07183800 - LIMESTONE C NR BEULAH, KS (LAT 37 24 12 LONG 094 53 16)								
MAR , 1979 20...	9.4	378	7.6	13.5	--	9.7	--	.1
07187600 - SPRING RIVER NEAR BAXTER SPRINGS, KANS. (LAT 37 01 25 LONG 094 43 15)								
OCT , 1978 18...	208	345	7.8	18.5	--	--	--	.1
MAY , 1979 17...	E1000	350	8.0	21.0	13	9.7	5	.3
365956094510400 - TAR C AT TREECE, KS (LAT 36 59 56 LONG 094 51 04)								
MAR , 1979 20...	3.3	618	6.9	12.5	--	9.6	--	.2
370114097370100 - FALL C NR CALDWELL, KS (LAT 37 01 14 LONG 097 37 01)								
NOV , 1978 06...	.53	970	8.4	12.5	17	--	--	--
SEP , 1979 14...	.10	840	8.2	22.5	--	--	--	--
370225094442600 - WILLOW C AT BAXTER SPRINGS, KS (LAT 37 02 25 LONG 094 44 26)								
MAR , 1979 20...	8.6	278	7.4	14.0	--	9.6	--	.1

E ESTIMATED VALUE.

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	ACIDITY (MG/L AS CACO3)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	ALKA-LINITY (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	SULFATE DIS-SOLVED (MG/L AS SO4)
ARKANSAS RIVER BASIN									
07151200 - CHIKASKIA R NR ZENDA, KS (LAT 37 20 23 LONG 098 16 55)									
NOV , 1978 03...	--	200	0	205	70	6.2	20	2.0	18
SEP , 1979 12...	--	190	4	190	67	6.0	18	2.0	15
07151290 - SAND C NR ZENDA, KS (LAT 37 20 41 LONG 098 16 55)									
NOV , 1978 03...	--	190	0	197	66	5.7	18	2.0	15
SEP , 1979 12...	--	190	0	190	64	6.9	20	2.0	17
07151400 - CHIKASKIA R AT RAGO, KS (LAT 37 26 55 LONG 098 04 16)									
SEP , 1979 18...	--	190	40	150	54	14	37	2.0	61
07151500 - CHIKASKIA R NR CORBIN, KS (LAT 37 07 44 LONG 097 36 04)									
NOV , 1978 07...	--	220	29	189	59	17	37	3.0	56
SEP , 1979 18...	--	240	41	190	61	21	47	3.0	93
07151650 - BLUFF C AT ANTHONY, KS (LAT 37 09 10 LONG 098 05 00)									
NOV , 1978 03...	--	280	91	189	70	25	60	4.0	130
SEP , 1979 14...	--	240	65	180	61	22	48	3.0	99
07151800 - BLUFF C NR CALDWELL, KS (LAT 37 00 51 LONG 097 42 35)									
NOV , 1978 06...	--	300	4	287	75	27	69	8.0	86
SEP , 1979 18...	--	290	22	260	7[illegible]	27	72	5.0	91
07183800 - LIMESTONE C NR BEULAH, KS (LAT 37 24 12 LONG 094 53 16)									
MAR , 1979 20...	5.9	160	45	115	58	3.7	7.3	2.0	50
07187600 - SPRING RIVER NEAR BAXTER SPRINGS, KANS. (LAT 37 01 25 LONG 094 43 15)									
OCT , 1978 18...	5.0	180	49	131	64	4.0	9.9	2.0	40
MAY , 1979 17...	13	150	43	107	54	3.2	--	--	39
365956094510400 - TAR C AT TREECE, KS (LAT 36 59 56 LONG 094 51 04)									
MAR , 1979 20...	9.8	300	250	48	99	14	6.9	3.0	250
370114097370100 - FALL C NR CALDWELL, KS (LAT 37 01 14 LONG 097 37 01)									
NOV , 1978 06...	--	390	98	295	98	36	73	8.0	160
SEP , 1979 14...	--	300	52	240	74	27	71	6.0	130
370225094442600 - WILLOW C AT BAXTER SPRINGS, KS (LAT 37 02 25 LONG 094 44 26)									
MAR , 1979 20...	5.9	100	74	26	30	7.1	9.2	4.0	81

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
ARKANSAS RIVER BASIN								
07151200 - CHIKASKIA R NR ZENDA, KS (LAT 37 28 23 LONG 098 16 55)								
NOV , 1978								
03...	19	.4	18	283	284	--	--	.02
SEP , 1979								
12...	17	.4	21	268	269	--	--	.11
07151290 - SAND C NR ZENDA, KS (LAT 37 24 41 LONG 098 16 55)								
NOV , 1978								
03...	18	.4	20	264	265	--	--	.03
SEP , 1979								
12...	23	.3	19	268	266	--	--	.04
07151400 - CHIKASKIA R AT RAGO, KS (LAT 37 26 55 LONG 098 04 16)								
SEP , 1979								
18...	50	.4	14	324	321	--	--	.05
07151500 - CHIKASKIA R NR CORBIN, KS (LAT 37 07 48 LONG 097 36 04)								
NOV , 1978								
07...	43	.2	11	339	340	--	--	.03
SEP , 1979								
18...	49	.4	10	397	398	--	--	.06
07151650 - BLUFF C AT ANTHONY, KS (LAT 37 09 10 LONG 098 05 00)								
NOV , 1978								
03...	70	.5	12	484	485	--	--	.10
SEP , 1979								
14...	54	.6	14	409	411	--	--	.08
07151800 - BLUFF C NR CALDWELL, KS (LAT 37 00 51 LONG 097 42 35)								
NOV , 1978								
06...	58	.4	11	512	507	--	--	.34
SEP , 1979								
18...	67	.5	8.0	500	499	--	--	.11
07183800 - LIMESTONE C NR BEULAH, KS (LAT 37 24 12 LONG 094 53 16)								
MAR , 1979								
20...	13	.2	5.3	--	208	.15	.29	.12
07187600 - SPRING RIVER NEAR BAXTER SPRINGS, KANS. (LAT 37 01 25 LONG 094 43 15)								
OCT , 1978								
18...	16	--	9.2	--	224	.52	.11	.27
MAY , 1979								
17...	11	.7	8.0	--	190	.12	.25	.15
365956094510400 - TAR C AT TREECE, KS (LAT 36 59 56 LONG 094 51 04)								
MAR , 1979								
20...	6.0	.3	2.3	--	418	.00	.14	.03
370114097370100 - FALL C NR CALDWELL, KS (LAT 37 01 14 LONG 097 37 01)								
NOV , 1978								
06...	78	.1	15	645	646	--	--	.36
SEP , 1979								
14...	57	.5	12	531	528	--	--	.11
370225094442600 - WILLOW C AT BAXTER SPRINGS, KS (LAT 37 02 25 LONG 094 44 26)								
MAR , 1979								
20...	11	.5	4.8	--	165	.03	.71	.56

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, CHEM-ICAL (LOW LEVEL) (MG/L)	ACIDITY TOTAL HEATED (MG/L AS H)
ARKANSAS RIVER BASIN								
370426094443200 - BRUSH C NR RIVERTON, KS (LAT 37 04 26 LONG 094 44 32)								
NOV , 1978								
15...	.25	245	6.9	8.5	--	--	--	.2
MAY , 1979								
17...	2.2	390	7.6	21.0	7.0	8.4	19	.3
370503094382200 - SHORT C AT GALENA, KS (LAT 37 05 03 LONG 094 38 22)								
OCT , 1978								
18...	.98	1480	5.5	13.5	--	--	--	6.8
NOV								
15...	8.2	740	6.3	8.5	--	--	--	2.2
FEB , 1979								
14...	42	385	6.7	6.0	200	12.2	--	.5
MAY								
17...	4.3	715	6.2	21.5	19	10.5	11	1.5
AUG								
15...	3.4	1350	5.2	22.0	10	10.8	10	--
370649094400600 - POND, CHEMICAL HOLDING NR GALENA, KS 34S 25E 38C (LAT 37 06 49 LONG 094 40 06)								
OCT , 1978								
17...	12	480	9.0	13.0	--	--	--	.0
370703097085200 - SALT CR AT GEUDA SPRINGS, KS (LAT 37 07 03 LONG 097 08 52)								
NOV , 1978								
09...	.67	11000	7.3	15.0	1.2	--	--	--
SEP , 1979								
18...	.23	13100	7.7	24.5	--	--	--	--
370703097092900 - SALT CREEK 34S 02E 01CDD (LAT 37 07 03 LONG 097 09 29)								
NOV , 1978								
09...	.34	4380	7.7	10.0	3.8	--	--	--
370704097095600 - SALT CR NR GEUDA SPRINGS, KS (LAT 37 07 04 LONG 097 09 56)								
SEP , 1979								
20...	.09	5230	7.7	18.0	--	--	--	--
370717097110100 - SALT C 2 MILES W OF GEUDA SPRINGS, KS (LAT 37 07 17 LONG 097 11 01)								
NOV , 1978								
09...	.05	3370	7.9	10.0	4.3	--	--	--
SEP , 1979								
18...	.02	1870	8.0	21.0	--	--	--	--
370740094372900 - TURKEY C NR GALENA, KS (LAT 37 07 40 LONG 094 37 29)								
OCT , 1978								
18...	9.8	620	7.4	13.5	--	--	--	.5
MAY , 1979								
17...	31	626	7.6	19.0	3.8	5.4	13	.6
370954097095700 - SLATE CR SE OF ADAMSVILLE, KS (LAT 37 09 54 LONG 097 09 57)								
NOV , 1978								
08...	10	7300	7.3	12.0	9.3	--	--	--
SEP , 1979								
19...	1.9	19000	8.2	24.0	--	--	--	--
371028097120600 - SLATE CR NW OF ADAMSVILLE, KS (LAT 37 10 28 LONG 097 12 06)								
NOV , 1978								
08...	7.8	6260	7.6	12.5	7.5	--	--	--
SEP , 1979								
19...	1.9	20900	7.6	24.0	--	--	--	--
371045094384100 - SPRING R NR GALENA, KS (LAT 37 10 45 LONG 094 38 41)								
OCT , 1978								
18...	76	335	8.2	13.5	--	--	--	.0
MAY , 1979								
17...	E350	400	8.0	19.5	17	8.6	5	.3

E ESTIMATED VALUE.

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	ACIDITY (MG/L AS CACO3)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	ALKA-LINITY (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	SULFATE DIS-SOLVED (MG/L AS SO4)
ARKANSAS RIVER BASIN									
370426094443200 - BRUSH C NR RIVERTON, KS (LAT 37 04 26 LONG 094 44 32)									
NOV , 1978									
15...	8.6	60	13	47	14	6.1	29	7.0	29
MAY , 1979									
17...	15	110	46	64	27	9.9	--	--	72
370503094382200 - SHORT C AT GALENA, KS (LAT 37 05 03 LONG 094 38 22)									
OCT , 1978									
18...	340	770	770	4	190	71	27	16	740
NOV									
15...	110	350	330	17	110	19	14	8.0	320
FEB , 1979									
14...	24	160	130	34	51	8.0	6.8	3.0	120
MAY									
17...	73	290	280	6	98	12	--	--	290
AUG									
15...	--	650	640	10	260	1.3	19	13	620
370649094400600 - POND, CHEMICAL HOLDING NR GALENA, KS 34S 25E 30C (LAT 37 06 49 LONG 094 40 36)									
OCT , 1978									
17...	.0	160	--	--	58	4.7	35	4.0	60
370703097085200 - SALT CR AT GEUDA SPRINGS, KS (LAT 37 07 03 LONG 097 08 52)									
NOV , 1978									
09...	--	2300	2100	197	720	130	2100	6.0	1800
SEP , 1979									
18...	--	2200	2000	190	680	120	2300	8.0	1700
370703097092900 - SALT CREEK 34S 02E 01CDD (LAT 37 07 03 LONG 097 09 29)									
NOV , 1978									
09...	--	2200	2000	100	680	130	410	7.0	1600
370704097095600 - SALT CR NR GEUDA SPRINGS, KS (LAT 37 07 04 LONG 097 09 56)									
SEP , 1979									
20...	--	2200	2100	180	700	120	420	6.0	1500
370717097110100 - SALT C 2 MILES W OF GEUDA SPRINGS, KS (LAT 37 07 17 LONG 097 11 01)									
NOV , 1978									
09...	--	2000	1800	262	630	110	210	8.0	1700
SEP , 1979									
18...	--	860	760	98	260	52	110	4.0	750
370740094372900 - TURKEY C NR GALENA, KS (LAT 37 07 40 LONG 094 37 29)									
OCT , 1978									
18...	24	260	100	156	93	5.0	36	11	100
MAY , 1979									
17...	31	240	92	148	90	4.7	--	--	100
370954097095700 - SLATE CR SE OF ADAMSVILLE, KS (LAT 37 09 54 LONG 097 09 57)									
NOV , 1978									
08...	--	990	660	328	260	83	1600	12	700
SEP , 1979									
19...	--	1500	1300	210	410	120	4600	11	1400
371028097120600 - SLATE CR NW OF ADAMSVILLE, KS (LAT 37 10 28 LONG 097 12 06)									
NOV , 1978									
08...	--	810	480	328	200	74	1200	13	510
SEP , 1979									
19...	--	1600	1400	210	440	130	4900	11	1400
371045094384100 - SPRING W NR GALENA, KS (LAT 37 10 45 LONG 094 38 41)									
OCT , 1978									
18...	.0	180	32	148	64	4.0	8.4	2.0	23
MAY , 1979									
17...	13	160	37	123	56	4.9	--	--	67

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
ARKANSAS RIVER BASIN								
370426094443200 - BRUSH C NR RIVERTON, KS (LAT 37 04 26 LONG 094 44 32)								
NOV , 1978 15...	43	.4	5.3	--	166	.43	.45	.28
MAY , 1979 17...	27	.3	6.0	--	180	.03	.26	.08
370503094382200 - SHORT C AT GALENA, KS (LAT 37 05 03 LONG 094 38 22)								
OCT , 1978 18...	32	--	16	--	1250	270	34	100
NOV 15...	18	3.0	17	--	570	80	14	34
FEB , 1979 14...	11	1.3	9.0	--	240	11	2.1	20
MAY 17...	15	3.8	14	--	500	29	7.2	14
AUG 15...	27	5.9	24	--	1020	120	18	40
370649094400600 - POND, CHEMICAL HOLDING NR GALENA, KS 34S 25E 30C (LAT 37 06 49 LONG 094 40 06)								
OCT , 1978 17...	52	--	6.4	--	278	.09	.22	.30
370703097085200 - SALT CR AT GEUDA SPRINGS, KS (LAT 37 07 03 LONG 097 08 52)								
NOV , 1978 09...	3500	.6	10	--	8350	--	--	.01
SEP , 1979 18...	3700	1.0	8.0	--	8580	--	--	.02
370703097092900 - SALT CREEK 34S 02E 01CDD (LAT 37 07 03 LONG 097 09 29)								
NOV , 1978 09...	950	.6	11	--	3650	--	--	.00
370704097095600 - SALT CR NR GEUDA SPRINGS, KS (LAT 37 07 04 LONG 097 09 56)								
SEP , 1979 20...	1100	1.0	9.0	--	3970	--	--	.04
370717097110100 - SALT C 2 MILES W OF GEUDA SPRINGS, KS (LAT 37 07 17 LONG 097 11 01)								
NOV , 1978 09...	390	.7	14	--	3230	--	--	.04
SEP , 1979 18...	180	.8	7.0	--	1420	--	--	.03
370740094372900 - TURKEY C NR GALENA, KS (LAT 37 07 40 LONG 094 37 29)								
OCT , 1978 18...	43	--	13	--	396	7.7	1.3	2.9
MAY , 1979 17...	30	.5	10	--	330	3.1	1.7	1.3
370954097095700 - SLATE CR SE OF ADAMSVILLE, KS (LAT 37 09 54 LONG 097 09 57)								
NOV , 1978 08...	2500	.6	12	--	5460	--	--	1.9
SEP , 1979 19...	7200	1.0	1.0	--	13800	--	--	.24
371028097120600 - SLATE CR NW OF ADAMSVILLE, KS (LAT 37 10 28 LONG 097 12 06)								
NOV , 1978 08...	1940	.7	13	--	4180	--	--	2.2
SEP , 1979 19...	7600	1.0	2.0	--	14600	--	--	.27
371045094384100 - SPRING R NR GALENA, KS (LAT 37 10 45 LONG 094 38 41)								
OCT , 1978 18...	16	--	4.3	--	210	.21	.03	.10
MAY , 1979 17...	11	.1	8.0	--	210	.15	.12	.13

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, CHEMICAL (LOW LEVEL) (MG/L)	ACIDITY TOTAL HEATED (MG/L AS H)
ARKANSAS RIVER BASIN								
371151097095800 - SLATE CR NR DALTON, KS (LAT 37 11 51 LONG 097 09 58)								
NOV , 1978								
08...	2.4	1120	8.1	9.5	12	--	--	--
SEP , 1979								
19...	1.1	1310	7.9	20.0	--	--	--	--
371256097205500 - SLATE CR SE OF WELLINGTON, KS (LAT 37 12 56 LONG 097 20 55)								
NOV , 1978								
08...	3.0	1030	8.2	11.0	9.0	--	--	--
SEP , 1979								
19...	.56	1050	8.0	19.5	--	--	--	--
371600097100800 - TRIB TO ARKANSAS R NR OXFORD, KS (LAT 37 16 00 LONG 097 10 08)								
SEP , 1979								
19...	.02	13100	7.8	25.0	--	--	--	--
371632097093600 - ARKANSAS R AT OXFORD, KS (LAT 37 16 32 LONG 097 09 36)								
NOV , 1978								
10...	--	1590	8.2	--	5.3	--	--	--
SEP , 1979								
21...	--	1870	8.0	21.0	--	--	--	--
371852097104200 - NINNESCAH RIVER 31S 02E 35ABB (LAT 37 18 52 LONG 097 10 42)								
NOV , 1978								
10...	--	1290	8.1	--	6.3	--	--	--
SEP , 1979								
20...	61	1630	8.0	24.0	--	--	--	--
372011097142500 - NINNESCAH RIVER 31S 02E 20CCC (LAT 37 20 11 LONG 097 14 25)								
NOV , 1978								
10...	--	1330	8.1	--	7.6	--	--	--
SEP , 1979								
20...	58	1690	8.1	25.0	--	--	--	--
372150097163400 - NINNESCAH RIVER 31S 01E 12CCC (LAT 37 21 50 LONG 097 16 34)								
NOV , 1978								
10...	--	1460	8.2	--	8.4	--	--	--
SEP , 1979								
20...	57	1690	8.1	24.0	--	--	--	--
372330097201700 - NINNESCAH RIVER 30S 01E 32DCC (LAT 37 23 30 LONG 097 20 17)								
NOV , 1978								
10...	99	1290	8.2	14.5	8.0	--	--	--
SEP , 1979								
20...	53	1450	8.2	23.0	--	--	--	--
372456094450700 - PIT NR PITTSBURG, KS 30S 24E 23 CAD (LAT 37 24 56 LONG 094 45 07)								
NOV , 1978								
16..1300	--	1710	6.6	9.0	--	9.9	--	.1
16..1305	--	1720	6.4	9.0	--	9.8	--	.1
16..1400	--	1440	6.0	6.5	--	8.9	--	.2
16..1405	--	1400	7.1	6.5	--	8.6	--	.1
372840097153500 - ARKANSAS R NR MULVANE, KS (LAT 37 28 40 LONG 097 15 35)								
NOV , 1978								
10...	--	1720	7.8	--	3.8	--	--	--
SEP , 1979								
21...	--	1630	7.9	23.0	--	--	--	--

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

ARKANSAS RIVER BASIN

371151097095800 - SLATE CR NR DALTON, KS (LAT 37 11 51 LONG 097 09 58)

DATE	ACIDITY (MG/L AS CACO3)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	ALKA-LINITY (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	SULFATE DIS-SOLVED (MG/L AS SO4)
NOV , 1978									
08...	--	470	180	295	100	53	100	10	200
SEP , 1979									
19...	--	500	230	270	120	51	95	7.0	290

371256097205500 - SLATE CR SE OF WELLINGTON, KS (LAT 37 12 56 LONG 097 20 55)

DATE	ACIDITY (MG/L AS CACO3)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	ALKA-LINITY (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	SULFATE DIS-SOLVED (MG/L AS SO4)
NOV , 1978									
08...	--	380	160	213	83	41	67	9.0	140
SEP , 1979									
19...	--	320	120	200	70	35	95	11	160

371600097100800 - TRIB TO ARKANSAS R NR OXFORD, KS (LAT 37 16 00 LONG 097 10 08)

DATE	ACIDITY (MG/L AS CACO3)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	ALKA-LINITY (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	SULFATE DIS-SOLVED (MG/L AS SO4)
SEP , 1979									
19...	--	2100	2100	72	520	200	2300	9.0	78

371632097093600 - ARKANSAS R AT OXFORD, KS (LAT 37 16 32 LONG 097 09 36)

DATE	ACIDITY (MG/L AS CACO3)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	ALKA-LINITY (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	SULFATE DIS-SOLVED (MG/L AS SO4)
NOV , 1978									
10...	--	280	110	180	83	19	260	6.0	110
SEP , 1979									
21...	--	310	130	180	88	22	240	7.0	140

371852097104200 - NINNESCAH RIVER 31S 02E 35ABB (LAT 37 18 52 LONG 097 10 42)

DATE	ACIDITY (MG/L AS CACO3)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	ALKA-LINITY (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	SULFATE DIS-SOLVED (MG/L AS SO4)
NOV , 1978									
10...	--	230	58	172	69	14	210	3.0	64
SEP , 1979									
20...	--	250	89	160	67	20	220	4.0	83

372011097142500 - NINNESCAH RIVER 31S 02E 20CCC (LAT 37 20 11 LONG 097 14 25)

DATE	ACIDITY (MG/L AS CACO3)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	ALKA-LINITY (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	SULFATE DIS-SOLVED (MG/L AS SO4)
NOV , 1978									
10...	--	230	62	172	69	15	210	3.0	62
SEP , 1979									
20...	--	240	93	150	66	19	230	4.0	83

372150097163400 - NINNESCAH RIVER 31S 01E 12CCC (LAT 37 21 50 LONG 097 16 34)

DATE	ACIDITY (MG/L AS CACO3)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	ALKA-LINITY (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	SULFATE DIS-SOLVED (MG/L AS SO4)
NOV , 1978									
10...	--	240	65	172	72	14	230	2.0	69
SEP , 1979									
20...	--	250	95	150	66	20	240	4.0	82

372330097201700 - NINNESCAH RIVER 30S 01E 32DCC (LAT 37 23 30 LONG 097 20 17)

DATE	ACIDITY (MG/L AS CACO3)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	ALKA-LINITY (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	SULFATE DIS-SOLVED (MG/L AS SO4)
NOV , 1978									
10...	--	230	58	172	69	14	200	3.0	63
SEP , 1979									
20...	--	220	67	150	59	18	210	4.0	73

372456094450700 - PIT NR PITTSBURG, KS 30S 24E 23 CAD (LAT 37 24 56 LONG 094 45 07)

DATE	ACIDITY (MG/L AS CACO3)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	ALKA-LINITY (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	SULFATE DIS-SOLVED (MG/L AS SO4)
NOV , 1978									
16...	6.0	960	930	30	290	57	50	5.0	990
16...	4.0	810	780	26	240	51	36	6.0	760
16...	8.0	960	900	62	290	57	49	4.0	1000
16...	7.2	810	750	62	240	51	36	6.0	7[illegible]0

372840097153500 - ARKANSAS R NR MULVANE, KS (LAT 37 28 40 LONG 097 15 35)

DATE	ACIDITY (MG/L AS CACO3)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	ALKA-LINITY (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	SULFATE DIS-SOLVED (MG/L AS SO4)
NOV , 1978									
10...	--	290	120	164	83	20	290	11	140
SEP , 1979									
21...	--	270	98	170	77	18	220	9.0	140

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	CHLORIDE, DIS-SOLVED (MG/L AS CL)	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	PHOSPHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
ARKANSAS RIVER BASIN								
371151097095800 - SLATE CR NR DALTON, KS (LAT 37 11 51 LONG 097 09 58)								
NOV , 1978								
08...	120	.7	13	816	802	--	--	3.3
SEP , 1979								
19...	100	.6	12	774	848	--	--	1.8
371256097205500 - SLATE CR SE OF WELLINGTON, KS (LAT 37 12 56 LONG 097 20 55)								
NOV , 1978								
08...	120	.6	11	625	620	--	--	2.3
SEP , 1979								
19...	120	.9	12	666	655	--	--	6.9
371600097100800 - TRIB TO ARKANSAS R NR OXFORD, KS (LAT 37 16 00 LONG 097 10 08)								
SEP , 1979								
19...	5000	.4	1.0	--	8190	--	--	.05
371632097093600 - ARKANSAS R AT OXFORD, KS (LAT 37 16 32 LONG 097 09 36)								
NOV , 1978								
10...	390	.4	10	--	1000	--	--	.99
SEP , 1979								
21...	380	.7	9.0	--	1010	--	--	1.4
371852097104200 - NINNESCAH RIVER 31S 02E 35ABB (LAT 37 18 52 LONG 097 10 42)								
NOV , 1978								
10...	320	.2	9.0	800	795	--	--	.06
SEP , 1979								
20...	370	.5	8.0	872	872	--	--	.09
372011097142500 - NINNESCAH RIVER 31S 02E 20CCC (LAT 37 20 11 LONG 097 14 25)								
NOV , 1978								
10...	330	.2	10	806	804	--	--	.06
SEP , 1979								
20...	380	.4	9.0	882	881	--	--	.08
372150097163400 - NINNESCAH RIVER 31S 01E 12CCC (LAT 37 21 50 LONG 097 16 34)								
NOV , 1978								
10...	340	.3	10	841	844	--	--	.11
SEP , 1979								
20...	400	.4	8.0	919	910	--	--	.10
372330097201700 - NINNESCAH RIVER 30S 01E 32DCC (LAT 37 23 30 LONG 097 20 17)								
NOV , 1978								
10...	310	.1	10	784	775	--	--	.05
SEP , 1979								
20...	330	.4	7.0	793	796	--	--	.07
372456094450700 - PIT NR PITTSBURG, KS 30S 24E 23 CAD (LAT 37 24 56 LONG 094 45 07)								
NOV , 1978								
16...	7.0	.8	1.8	--	1420	.00	.08	.00
16...	6.0	.7	1.4	--	1120	.00	.12	.10
16...	7.0	.8	2.3	--	1450	.03	.20	.07
16...	6.0	.7	3.3	--	1140	.00	.08	.01
372840097153500 - ARKANSAS R NR MULVANE, KS (LAT 37 28 40 LONG 097 15 35)								
NOV , 1978								
10...	410	.8	12	--	1120	--	--	2.7
SEP , 1979								
21...	320	.8	11	--	911	--	--	2.6

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BORON, DISSOLVED (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)
ARKANSAS RIVER BASIN										
07183800 - LIMESTONE C NR BEULAH, KS (LAT 37 24 12 LONG 094 53 16)										
MAR , 1979										
20...	2300	0	0	160	0	0	0	0	10	10
07187600 - SPRING RIVER NEAR BAXTER SPRINGS, KANS. (LAT 37 01 25 LONG 094 43 15)										
OCT , 1978										
18...	600	0	0	80	0	0	0	0	0	0
MAY , 1979										
17...	1000	0	--	80	0	0	0	0	10	10
365956094510400 - TAR C AT TREECE, KS (LAT 36 59 56 LONG 094 51 04)										
MAR , 1979										
20...	500	0	0	140	30	30	0	0	0	0
370225094442600 - WILLOW C AT BAXTER SPRINGS, KS (LAT 37 02 25 LONG 094 44 26)										
MAR , 1979										
20...	3000	100	0	170	10	0	0	0	0	0
370426094443200 - BRUSH C NR RIVERTON, KS (LAT 37 04 26 LONG 094 44 32)										
NOV , 1978										
15...	4300	200	0	180	80	60	0	0	10	10
MAY , 1979										
17...	700	100	--	140	10	0	0	0	260	0
370503094382200 - SHORT C AT GALENA, KS (LAT 37 05 03 LONG 094 38 22)										
OCT , 1978										
18...	2900	2700	10	960	800	800	0	0	1300	1300
NOV										
15...	1800	100	0	460	340	270	0	0	600	240
FEB , 1979										
14...	8600	100	0	180	230	80	30	0	910	30
MAY										
17...	600	0	--	570	330	240	0	0	750	200
AUG										
15...	1900	1700	0	1600	930	--	0	0	3000	2800
370649094400600 - POND, CHEMICAL HOLDING NR GALENA, KS 34S 25E 30C (LAT 37 06 49 LONG 094 40 06)										
OCT , 1978										
17...	600	0	0	50	20	20	0	0	30	10
370740094372900 - TURKEY C NR GALENA, KS (LAT 37 07 40 LONG 094 37 29)										
OCT , 1978										
18...	100	100	0	370	0	0	0	0	20	20
MAY , 1979										
17...	200	0	--	180	10	0	20	10	10	0
371045094384100 - SPRING R NR GALENA, KS (LAT 37 10 45 LONG 094 38 41)										
OCT , 1978										
18...	800	0	0	40	--	--	0	0	10	10
MAY , 1979										
17...	1400	100	--	60	0	0	0	0	0	0
372456094450700 - PIT NR PITTSBURG, KS 30S 24E 23 CAD (LAT 37 24 56 LONG 094 45 07)										
NOV , 1978										
16..1300	100	0	0	190	--	--	0	0	10	10
16..1305	400	0	0	130	--	--	0	0	40	20
16..1400	2700	0	0	170	--	--	20	0	50	10
16..1405	100	0	0	150	--	--	0	0	10	10

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
ARKANSAS RIVER BASIN									
07183800 - LIMESTONE C NR BEULAH, KS (LAT 37 24 12 LONG 094 53 16)									
MAR , 1979 20...	1300	90	0	0	60	40	1.0	30	30
07187600 - SPRING RIVER NEAR BAXTER SPRINGS, KANS. (LAT 37 01 25 LONG 094 43 15)									
OCT , 1978 18...	590	10	--	--	140	30	.0	200	80
MAY , 1979 17...	660	10	0	0	200	150	.6	350	200
365956094510400 - TAR C AT TREECE, KS (LAT 36 59 56 LONG 094 51 04)									
MAR , 1979 20...	540	30	100	0	380	360	.0	7400	7000
370225094442600 - WILLOW C AT BAXTER SPRINGS, KS (LAT 37 02 25 LONG 094 44 26)									
MAR , 1979 20...	3000	170	0	0	240	210	.0	110	770
370426094443200 - BRUSH C NR RIVERTON, KS (LAT 37 04 26 LONG 094 44 32)									
NOV , 1978 15...	4500	450	600	400	560	500	.0	260	260
MAY , 1979 17...	620	60	0	0	250	170	2.0	2900	150
370503094382200 - SHORT C AT GALENA, KS (LAT 37 05 03 LONG 094 38 22)									
OCT , 1978 18...	680	90	100	--	3500	3400	.0	150000	150000
NOV 15...	1600	20	800	300	1800	1700	.0	54000	49000
FEB , 1979 14...	5000	20	24000	0	660	480	2.0	22000	9200
MAY 17...	290	20	200	0	1900	1800	.7	56000	48000
AUG 15...	820	150	800	--	4900	4900	1.0	190000	190000
370649094400600 - POND, CHEMICAL HOLDING NR GALENA, KS 34S 25E 38C (LAT 37 06 49 LONG 094 40 06)									
OCT , 1978 17...	990	10	300	--	140	50	.0	70	280
370740094372900 - TURKEY C NR GALENA, KS (LAT 37 07 40 LONG 094 37 29)									
OCT , 1978 18...	380	70	200	--	120	110	.0	160	130
MAY , 1979 17...	510	60	0	0	200	180	.7	340	130
371045094384100 - SPRING R NR GALENA, KS (LAT 37 10 45 LONG 094 38 41)									
OCT , 1978 18...	510	10	--	--	90	50	.0	20	20
MAY , 1979 17...	790	40	0	0	270	170	.7	130	10
372456094450700 - PIT NR PITTSBURG, KS 30S 24E 23 CAD (LAT 37 24 56 LONG 094 45 07)									
NOV , 1978 16...	290	70	--	--	100	100	.0	10	10
16...	1000	60	--	--	190	60	.0	50	40
16...	15000	60	--	--	180	110	.0	70	30
16...	80	20	--	--	60	30	.0	0	0

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
ARKANSAS RIVER BASIN					
07138020 - ARKANSAS R AT KENDALL, KS (LAT 37 55 48 LONG 101 32 56)					
JUN , 1979					
05...	1145	271	1350	3670	2690
07139500 - ARKANSAS R AT DODGE CITY, KS (LAT 37 44 51 LONG 100 01 08)					
MAY , 1979					
30...	1305	.12	300	211	.07
JUL					
26...	1030	9.1	550	61	1.5
07140600 - PAWNEE R TR NR KALVESTA, KS (LAT 38 03 42 LONG 100 21 00)					
JUL , 1979					
23...	1225	124	135	1070	358
07141600 - LONG BRANCH C NR NESS CITY, KS (LAT 38 27 01 LONG 099 52 50)					
MAR , 1979					
22...	1310	10	240	1230	33
JUL					
23...	1730	58	185	980	153
07142860 - COW C NR CLAFLIN, KS (LAT 38 31 20 LONG 098 35 00)					
MAR , 1979					
29...	1040	1.1	625	101	.30
07183800 - LIMESTONE C NR BEULAH, KS (LAT 37 24 12 LONG 094 53 16)					
MAR , 1979					
20...	1440	9.4	378	36	.91
370225094442600 - WILLOW C AT BAXTER SPRINGS, KS (LAT 37 02 25 LONG 094 44 26)					
MAR , 1979					
20...	1215	8.6	278	66	1.5
370503094382200 - SHORT C AT GALENA, KS (LAT 37 05 03 LONG 094 38 22)					
FEB , 1979					
14...	1310	42	385	438	--

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	SEDI-MENT, SUS-PENDED (MG/L)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM
ARKANSAS RIVER BASIN											
07138020 - ARKANSAS R AT KENDALL, KS (LAT 37 55 48 LONG 101 32 56)											
JUN , 1979 05...	1145	3670	64	85	98	100	--	--	--	--	--
07141600 - LONG BRANCH C NR NESS CITY, KS (LAT 38 27 01 LONG 099 52 50)											
MAR , 1979 22...	1310	1230	88	93	96	99	100	--	--	--	--
JUL 23...	1730	980	88	97	98	100	--	--	--	--	--
07182250 - COTTONWOOD R NR PLYMOUTH, KS (LAT 38 23 51 LONG 096 21 21)											
MAR , 1979 21...	0940	1690	69	77	--	86	96	97	98	99	100

MISCELLANEOUS WATER TEMPERATURES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)
ARKANSAS RIVER BASIN							
07137000 FRONTIER DITCH NEAR COOLIDGE, KANS.				(LAT 38 02 18 LONG 102 02 19)			
MAY , 1979							
15...	1515	4.2	22.0				
07137500 ARKANSAS RIVER NEAR COOLIDGE, KANS.				(LAT 38 01 34 LONG 102 00 41)			
OCT., 1978				MAY			
1...	1205	2.0	20.0	15...	1120	2.5	19.0
26...	1110	2.4	7.0	29...	1330	4.6	30.5
NOV.				30...	1730	252	21.0
4...	1210	1.0	18.0	31...	1220	580	15.0
DEC.				JUNE			
5...	1140	3.6	1.0	1...	1415	111	18.0
28...	1225	4.3	6.0	19...	1150	9.9	23.0
JAN., 1979				JULY			
16...	1415	1.7	0.5	11...	1500	26	30.5
FEB.				16...	1125	203	24.5
1...	1215	5.4	0.5	19...	1600	393	25.0
14...	1110	6.1	9.0	30...	1205	18	23.0
MAR.				AUG.			
7...	1435	9.6	12.0	28...	1215	26	24.0
27...	1355	9.8	15.5	SEP.			
APR.				13...	1605	4.2	24.0
24...	1210	8.5	24.5	21...	1310	12	17.5
07138000 ARKANSAS R AT SYRACUSE, KS				(LAT 37 57 58 LONG 101 45 23)			
OCT., 1978				APR.			
1...	1420	0.80	27.0	24...	1500	2.7	28.0
26...	1450	1.0	17.5	MAY			
NOV.				17...	1030	1.1	18.5
4...	1350	1.0	20.0	31...	1255	256	16.0
DEC.				31...	2105	410	16.0
5...	1515	1.4	3.0	JUNE			
28...	1410	1.5	12.0	19...	1445	11	27.0
JAN., 1979				JULY			
16...	1530	1.3	6.5	11...	1200	26	28.0
FEB.				17...	1255	178	24.0
1...	1400	1.6	7.5	AUG.			
20...	1140	1.6	10.0	1...	1245	17	29.0
MAR.							
5...	1410	1.3	17.0				
27...	1110	4.0	10.0				
07138660 WHITEWOMAN C 4.2 MILES S OF LEOTI, KS				(LAT 38 25 15 LONG 101 21 25)			
JULY, 1979							
5...	1405	2.4	21.0				
07139500 ARKANSAS R AT DODGE CITY, KS				(LAT 37 44 51 LONG 100 01 08)			
MAY , 1979				JULY			
30...	1250	0.12	20.5	26...	1000	9.1	24.5
07139800 MULBERRY C NR DODGE CITY, KS				(LAT 37 35 53 LONG 100 00 52)			
MAY , 1979							
30...	1110	1.3	18.0				
07140000 ARKANSAS R NR KINSLEY, KS				(LAT 37 55 33 LONG 099 22 31)			
OCT., 1978				MAY			
2...	1515	16	19.0	22...	1210	52	18.0
NOV.				JUNE			
8...	1345	10	14.5	13...	1720	16	30.5
DEC.				JULY			
19...	1220	18	7.5	24...	1210	14	28.0
JAN., 1979				25...	1650	162	27.0
25...	1650	20	1.0	AUG.			
MAR.				20...	1750	15	29.0
16...	1235	24	9.0				
APR.							
19...	1300	33	23.0				
07140700 GUZZLERS GULCH NR NESS CITY, KS				(LAT 38 17 40 LONG 099 57 10)			
FEB., 1979				JULY			
23...	1500	0.28	9.0	23...	1445	12	25.0
MAR.							
22...	1110	30	8.0				

ARKANSAS RIVER BASIN

07141200 PAWNEE R NR LARNED, KS (LAT 38 12 00 LONG 099 20 50)

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)
OCT., 1978				AUG.			
2...	1345	10	19.5	21...	1000	7.1	24.5
MAR., 1979							
16...	1415	0.21	8.5				
22...	1540	925	11.0				
JULY							
23...	2215	3640	21.0				
24...	1850	6280	19.0				
25...	1315	9440	21.0				

07141300 ARKANSAS R AT GREAT BEND, KS (LAT 38 21 11 LONG 098 45 50)

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)
OCT., 1978				JULY			
12...	1555	1.4	20.0	17...	1615	10	25.0
NOV.				27...	1205	4160	27.0
28...	1555	1.2	6.5	30...	1130	1940	25.0
JAN., 1979				31...	1115	1190	25.0
9...	0855	4.6	0.5	AUG.			
FEB.				6...	1035	401	26.5
20...	1555	6.4	4.0	10...	1155	177	24.0
MAR.				14...	1100	101	23.0
26...	1600	654	8.5	20...	1100	56	24.0
MAY				30...	0755	23	24.0
1...	1100	28	17.0				
JUNE							
11...	1510	16	24.0				

07141780 WALNUT C NR RUSH CENTER, KS (LAT 38 28 07 LONG 099 22 07)

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)
MAR., 1979				JUNE			
27...	1325	52	7.0	12...	1030	0.68	21.0
MAY				AUG.			
7...	1425	2.8	19.0	29...	1255	0.50	27.0
8...	1010	1.7	19.0				

07141900 WALNUT C AT ALBERT, KS (LAT 38 27 40 LONG 099 00 59)

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)
MAR., 1979				JULY			
27...	1120	120	6.0	18...	0935	0.29	21.0
MAY				AUG.			
8...	0745	13	18.0	29...	1530	0.74	28.0
JUNE							
12...	0825	0.06	21.0				

07142300 RATTLESNAKE C NR MACKSVILLE, KS (LAT 37 52 20 LONG 098 52 30)

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)
OCT., 1978				MAY			
2...	1430	11	22.0	8...	1300	24	24.0
NOV.				JUNE			
29...	1455	14	9.0	12...	1330	23	26.0
JAN., 1979				JULY			
16...	1240	15	0.0	18...	1515	14	29.0
FEB.				AUG.			
21...	0905	22	3.0	28...	1340	14	28.0
MAR.							
27...	1625	27	12.0				

07142575 RATTLESNAKE C NR ZENITH, KS (LAT 38 06 01 LONG 098 30 32)

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)
OCT., 1978				MAY			
12...	1535	14	21.0	7...	1115	49	20.0
NOV.				JUNE			
28...	1315	32	6.0	11...	1255	46	26.0
JAN., 1979				JULY			
9...	1200	27	0.0	17...	1325	16	27.0
FEB.				AUG.			
22...	1055	64	0.0	28...	1620	19	32.0
MAR.				SEP.			
26...	1255	78	11.0	11...	1150	6.4	26.0

07142620 RATTLESNAKE C NR RAYMOND, KS (LAT 38 13 50 LONG 098 25 00)

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)
OCT., 1978				MAY			
12...	1100	2.5	16.0	1...	1350	51	19.0
NOV.				JUNE			
28...	1100	4.9	4.0	11...	1105	9.2	23.0
JAN., 1979				JULY			
9...	1420	2.4	0.0	17...	1125	3.2	22.0
FEB.				AUG.			
22...	1420	74	0.5	20...	1320	3.4	32.0
MAR.							
26...	1105	186	9.0				

ARKANSAS RIVER BASIN

07142860 COW C NR CLAFLIN, KS (LAT 38 31 20 LONG 098 35 00)

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)
MAR., 1979				MAY			
29...	1040	1.1	14.0	30...	1220	0.26	19.0

07142900 BLOOD C NR BOYD, KS (LAT 38 32 10 LONG 098 51 35)

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)
DEC., 1978				JUNE			
1...	1410	0.19	5.0	1...	1005	0.74	15.0
JAN., 1979				28...	0955	0.18	23.0
8...	1420	0.47	0.0	JULY			
MAR.				30...	1100	0.48	24.5
29...	1315	1.2	17.0				

07143300 COW C NR LYONS, KS (LAT 38 18 30 LONG 098 11 30)

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)
OCT., 1978				MAY			
11...	1435	2.5	15.0	22...	1200	57	19.0
DEC.				JUNE			
1...	1110	8.5	3.0	21...	1050	8.4	23.0
JAN., 1979				JULY			
22...	1205	13	1.5	23...	1115	14	25.0
FEB.				SEP.			
27...	1240	181	2.0	6...	1045	2.3	26.0
APR.							
9...	1145	20	14.0				

07143330 ARKANSAS R NR HUTCHINSON, KS (LAT 37 56 47 LONG 097 46 29)

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)
OCT., 1978				MAR.			
10...	1325	132	21.0	29...	1240	1770	17.0
NOV.				MAY			
9...	1155	112	15.0	10...	1100	723	20.0
DEC.				JUNE			
16...	1050	116	3.5	14...	1050	222	27.0
JAN., 1979				AUG.			
18...	1040	96	0.5	29...	0820	231	23.0
FEB.							
23...	1205	557	1.0				

07143665 L ARKANSAS R AT ALTA MILLS, KS (LAT 38 06 44 LONG 097 35 30)

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)
OCT., 1978				MAR.			
10...	1040	16	14.5	30...	1130	138	14.0
NOV.				MAY			
9...	0940	11	9.0	10...	1335	96	22.0
DEC.				JUNE			
16...	1005	13	1.0	14...	0855	23	23.0
JAN., 1979				JULY			
19...	1210	11	1.0	19...	1225	1750	25.0
FEB.				AUG.			
23...	1450	934	2.0	27...	1200	8.7	22.0

07144200 L ARKANSAS R AT VALLEY CENTER, KS (LAT 37 49 56 LONG 097 23 16)

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)
MAR., 1979			
20...	1110	3930	12.0

07144300 ARKANSAS R AT WICHITA, KS (LAT 37 38 41 LONG 097 20 06)

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)
OCT., 1978				MAY			
5...	1155	213	16.0	1...	1130	514	17.0
NOV.				JUNE			
27...	1155	169	5.5	20...	1155	358	22.0
JAN., 1979				JULY			
9...	1210	103	0.0	25...	1200	491	24.0
FEB.				AUG.			
5...	1155	72	0.0	31...	1225	252	26.0
MAR.							
21...	1145	7620	11.0				

07144550 ARKANSAS R AT DERBY, KS (LAT 37 32 34 LONG 097 16 31)

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)
OCT., 1978				MAY			
10...	1200	242	21.0	11...	1125	1550	15.0
NOV.				JULY			
27...	1440	246	9.0	2...	1145	635	28.0
JAN., 1979				SEP.			
17...	1145	131	5.0	12...	1205	300	27.0
FEB.							
23...	1140	552	4.0				

MISCELLANEOUS WATER TEMPERATURES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)
ARKANSAS RIVER BASIN							
07144780 NF NINNESCAH R AB CHENEY RE, KS				(LAT 37 50 41 LONG 097 56 09)			
OCT., 1978				APR.			
5...	1420	40	22.0	6...	1125	218	12.0
20...	1150	34	16.0	19...	1110	134	10.0
NOV.				MAY			
3...	1240	39	17.5	4...	1110	243	13.0
13...	1345	44	14.5	17...	1040	125	20.0
DEC.				JUNE			
5...	1420	76	1.0	6...	1325	1310	21.0
19...	1030	77	5.0	20...	1035	56	22.0
JAN., 1979				JULY			
4...	1255	40	0.0	3...	1115	46	28.5
17...	1225	64	0.0	19...	0845	44	28.0
FEB.				AUG.			
5...	1150	81	0.0	7...	1055	62	28.0
20...	1155	96	0.0	21...	1230	41	30.0
MAR.				SEP.			
6...	1220	212	0.0	5...	1140	25	28.0
29...	1135	520	11.0	18...	1115	20	24.0
07144795 NF NINNESCAH R AT CHENEY DAM, KS				(LAT 37 43 17 LONG 097 47 39)			
OCT., 1978				MAR.			
13...	1350	0.95	16.0	29...	1010	762	10.0
NOV.				MAY			
13...	1350	0.71	15.0	9...	1430	396	19.0
DEC.				JUNE			
26...	1240	0.46	3.5	13...	1415	396	24.0
JAN., 1979				JULY			
24...	1120	0.50	0.5	17...	1530	0.16	29.0
FEB.				AUG.			
26...	1140	0.22	3.0	21...	1110	0.17	28.0
07145200 SF NINNESCAH R NR MURDOCK, KS				(LAT 37 35 51 LONG 097 51 10)			
OCT., 1978				MAY			
13...	1155	90	17.0	9...	0840	198	20.0
NOV.				JUNE			
30...	1045	127	5.0	13...	1015	179	24.0
JAN., 1979				JULY			
17...	0945	107	0.0	18...	1350	255	28.0
FEB.				AUG.			
26...	1400	225	1.0	27...	1620	103	28.0
MAR.							
28...	1400	299	16.0				
07145500 NINNESCAH R NR PECK, KS				(LAT 37 27 34 LONG 097 25 20)			
OCT., 1978				MAY			
10...	1005	42	19.0	22...	1150	853	21.0
NOV.				JUNE			
29...	1055	141	7.0	26...	1150	297	27.0
JAN., 1979				JULY			
25...	1115	188	0.0	31...	1245	201	26.0
MAR.				SEP.			
6...	1230	417	8.0	4...	1210	69	28.0
APR.				20...	1010	49	21.0
10...	1150	1110	13.5				
07145700 SLATE C AT WELLINGTON, KS				(LAT 37 15 00 LONG 097 24 12)			
OCT., 1978				MAY			
11...	1545	1.3	17.0	22...	1450	15	22.0
NOV.				JUNE			
28...	0935	20	4.5	26...	1435	15	23.0
JAN., 1979				JULY			
25...	1300	21	0.5	31...	1530	3.6	26.0
MAR.				SEP.			
6...	1505	33	7.0	12...	1420	0.21	26.0
APR.				19...	0955	1.5	24.0
10...	1525	20	12.0				
07146500 ARKANSAS R AT ARKANSAS CITY, KS				(LAT 37 03 23 LONG 097 03 32)			
OCT., 1978				APR.			
11...	0920	373	20.0	19...	0940	1950	17.0
DEC.				AUG.			
5...	1515	380	6.5	7...	1030	2440	29.0
FEB., 1979				SEP.			
7...	1200	275	0.0	18...	0940	388	25.0
07146570 COLE C NR DEGRAFF, KS				(LAT 37 56 30 LONG 096 46 50)			
FEB., 1979				JUNE			
7...	1105	0.23	0.0	19...	1245	14	23.5
MAR.				JULY			
15...	1135	3.4	7.0	24...	1115	0.04	25.0
MAY							
24...	1115	2.9	17.0				

ARKANSAS RIVER BASIN

07147070 WHITEWATER R AT TOWANDA, KS (LAT 37 47 45 LONG 097 00 45)

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)
OCT., 1978				MAY			
3...	1250	4.9	20.0	16...	1115	42	18.0
NOV.				JUNE			
9...	0945	6.4	10.5	28...	1050	161	24.0
DEC.				AUG.			
14...	1450	9.1	1.5	2...	1015	72	23.0
FEB., 1979				SEP.			
6...	1155	12	0.0	13...	1330	16	23.0
MAR.							
8...	1030	58	5.0				

07147800 WALNUT R AT WINFIELD, KS (LAT 37 13 27 LONG 096 59 40)

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)
OCT., 1978				MAY			
12...	0915	23	19.0	23...	1420	2060	20.0
NOV.				JUNE			
28...	1630	87	7.5	27...	1410	1200	26.0
JAN., 1979				AUG.			
26...	0850	135	1.0	1...	1445	357	28.0
MAR.				SEP.			
7...	1440	787	8.5	12...	1650	81	28.0
APR.							
11...	1350	550	15.0				

07149000 MEDICINE LODGE R NR KIOWA, KS (LAT 37 02 17 LONG 098 28 04)

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)
NOV., 1978				MAY			
2...	1000	41	17.0	31...	1245	104	22.0
DEC.				JUNE			
6...	1200	68	1.0	21...	1205	66	27.5
JAN., 1979				JULY			
10...	1200	31	0.0	12...	1500	51	35.0
FEB.				AUG.			
21...	1400	112	0.0	8...	1510	34	33.5
MAR.				SEP.			
8...	1525	118	13.0	19...	1655	1.7	27.0
APR.							
19...	1430	101	20.5				

07151500 CHIKASKIA R NR CORBIN, KS (LAT 37 07 44 LONG 097 36 04)

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)
OCT., 1978				JUNE			
11...	1230	31	18.0	27...	1025	88	24.0
NOV.				AUG.			
28...	1235	83	4.0	1...	1100	36	26.0
JAN., 1979				SEP.			
25...	1445	95	0.0	12...	1245	4.7	28.0
MAR.				18...	1240	4.5	27.5
7...	1025	204	7.5				
MAY							
23...	1015	205	20.0				

07155590 CIMARRON R NR ELKHART, KS (LAT 37 07 30 LONG 101 53 50)

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)
MAY , 1979				JUNE			
3...	1450	20	4.5	20...	0950	0.27	20.0

07156010 NF CIMARRON R AT RICHFIELD, KS (LAT 37 15 30 LONG 101 46 30)

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)
NOV., 1978			
7...	1610	0.07	10.0

07157500 CROOKED C NR NYE, KS (LAT 37 02 02 LONG 100 11 55)

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)
OCT., 1978				APR.			
3...	1420	6.3	25.5	12...	1215	20	11.0
NOV.				MAY			
9...	1300	9.1	20.0	11...	1120	24	13.5
DEC.				JUNE			
14...	1115	7.5	0.0	12...	1530	18	32.0
FEB., 1979				AUG.			
2...	1200	10	0.0	2...	1210	73	27.0
MAR.				SEP.			
9...	1330	18	11.0	5...	1300	3.8	28.0

07157740 CIMARRON RIVER NR BUTTERMILK, KS (LAT 37 01 36 LONG 099 28 45)

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)
NOV., 1978				MAY			
8...	1710	0.18	16.5	10...	1435	96	17.0
DEC.				JUNE			
14...	1620	7.2	0.0	13...	0915	105	21.0
JAN., 1979				AUG.			
25...	1145	118	0.5	1...	1400	149	30.0
APR.				SEP.			
12...	1530	140	12.0	6...	1400	0.85	34.0

ARKANSAS RIVER BASIN

07157900 CAVALRY C AT COLDWATER, KS (LAT 37 16 08 LONG 099 20 40)

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)
OCT., 1978			
5...	1010	1.2	16.0
NOV.			
8...	1610	1.6	17.0
DEC.			
18...	1315	1.5	10.0
JAN., 1979			
25...	1430	1.7	3.0
MAR.			
8...	1310	1.7	7.0
APR.			
13...	1230	1.9	11.0
MAY			
11...	0815	1.6	11.5
JUNE			
12...	1820	1.8	25.0
AUG.			
2...	0910	1.8	18.5
SEP.			
6...	1325	0.85	19.0

07157940 BLUFF CREEK NR BUTTERMILK, KS (LAT 37 01 55 LONG 099 20 45)

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)
OCT., 1978			
3...	1110	0.88	18.5
NOV.			
9...	0950	2.8	11.0
DEC.			
14...	1415	11	3.0
JAN., 1979			
25...	1220	13	1.0
MAR.			
9...	0930	21	6.5
APR.			
12...	1640	46	17.0
MAY			
10...	1540	25	19.0
JUNE			
13...	1120	25	24.0
AUG.			
1...	1600	12	31.0
SEP.			
7...	1100	0.99	23.0

07166000 VERDIGRIS R NR COYVILLE, KS (LAT 37 42 20 LONG 095 54 20)

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)
OCT., 1978			
3...	1015	12	21.0
27...	0915	8.8	11.5
NOV.			
30...	0815	15	4.5
DEC.			
28...	1100	8.5	2.0
JAN., 1979			
29...	1415	11	1.0
FEB.			
26...	0940	539	3.5
MAR.			
7...	1045	1050	4.5
26...	0900	188	5.5
APR.			
25...	1230	10	16.5
MAY			
25...	0930	616	15.5
JUNE			
13...	1040	6070	21.5
JULY			
16...	0945	4470	27.0
AUG.			
20...	0930	36	22.5
SEP.			
14...	0930	21	15.5

07166500 VERDIGRIS R NR ALTOONA, KS (LAT 37 29 26 LONG 095 40 49)

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)
OCT., 1978			
4...	1045	37	19.5
31...	0845	7.7	13.0
NOV.			
28...	0845	61	4.5
DEC.			
27...	1015	16	2.0
JAN., 1979			
25...	1445	126	0.5
FEB.			
26...	1245	887	3.5
MAR.			
27...	1040	465	5.5
APR.			
26...	1200	51	15.5
MAY			
24...	1410	601	19.5
JUNE			
20...	1425	5560	23.0
JULY			
16...	1345	4470	27.0
AUG.			
20...	1200	48	23.0
SEP.			
12...	1015	36	29.5

07167500 OTTER C AT CLIMAX, KS (LAT 37 42 30 LONG 096 13 30)

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)
OCT., 1978			
3...	0830	0.06	20.0
NOV.			
16...	1410	0.51	7.5
DEC.			
12...	0835	0.28	2.5
JAN., 1979			
9...	0900	0.49	1.0
FEB.			
6...	0840	0.75	0.5
MAR.			
6...	0905	75	3.0
APR.			
10...	1020	48	12.5
MAY			
8...	0900	49	19.0
JUNE			
5...	0940	24	23.0
JULY			
10...	0915	66	23.0
AUG.			
14...	1010	4.1	23.5
SEP.			
18...	0850	1.2	17.0

07168500 FALL R NR FALL RIVER, KS (LAT 37 38 34 LONG 096 03 33)

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)
OCT., 1978			
5...	1230	12	21.0
27...	1100	12	11.5
NOV.			
30...	0945	11	5.5
DEC.			
20...	1345	11	4.5
JAN., 1979			
17...	1000	12	1.0
FEB.			
12...	1045	11	0.5
MAR.			
7...	1425	749	4.5
26...	1035	182	6.5
APR.			
16...	1500	590	12.0
25...	1000	18	18.0
MAY			
29...	1445	1040	20.5
JUNE			
13...	1345	5240	21.5
JULY			
13...	1145	349	26.5
25...	1230	22	27.0
AUG.			
20...	1145	56	22.5
SEP.			
14...	1115	17	16.5

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)
ARKANSAS RIVER BASIN							
07169500 FALL R AT FREDONIA, KS				(LAT 37 30 30 LONG 095 50 00)			
OCT., 1978				APR.			
5...	1200	18	19.5	25...	1130	62	18.0
31...	1030	19	18.5	MAY			
NOV.				24...	1230	1060	18.5
30...	1315	17	5.5	JUNE			
DEC.				20...	1030	4770	23.0
19...	1445	15	5.5	JULY			
JAN., 1979				24...	1000	199	27.0
17...	1100	12	0.5	AUG.			
FEB.				20...	1030	75	23.0
12...	1400	18	0.5				
MAR.							
26...	1345	263	7.0				
07169800 ELK R AT ELK FALLS, KS				(LAT 37 22 32 LONG 096 11 07)			
OCT., 1978				APR.			
3...	1035	0.10	20.0	10...	1320	51	14.0
NOV.				MAY			
16...	1115	1.0	7.0	8...	1130	28	20.0
DEC.				JUNE			
12...	1230	0.58	5.0	5...	1210	10	24.0
JAN., 1979				JULY			
9...	1125	0.89	2.0	10...	1230	144	25.5
FEB.				AUG.			
6...	1105	1.8	0.5	14...	1320	11	25.5
MAR.				SEP.			
6...	1305	99	5.0	18...	1050	1.1	20.5
07170060 ELK R BL ELK CITY LK, KS				(LAT 37 16 46 LONG 095 46 53)			
OCT., 1978				APR.			
4...	1430	5.7	21.5	11...	1430	3040	10.0
NOV.				16...	1245	96	12.0
2...	0845	7.0	2.0	24...	1140	0.73	18.0
28...	1215	6.3	3.5	30...	1345	3.0	18.0
DEC.				MAY			
27...	1445	5.9	3.0	24...	1000	1100	16.0
JAN., 1979				JUNE			
24...	1145	4.9	3.5	18...	1210	3860	22.0
FEB.				19...	1115	2140	22.0
22...	1245	5.6	4.0	JULY			
27...	1500	10	3.5	24...	1200	45	27.0
MAR.				AUG.			
27...	1345	13	6.5	22...	1315	49	29.0
07170500 VERDIGRIS R AT INDEPENDENCE, KS				(LAT 37 13 26 LONG 095 40 43)			
OCT., 1978				APR.			
4...	1230	65	20.0	26...	1015	222	15.5
NOV.				MAY			
2...	1015	16	18.5	24...	1145	1180	18.5
28...	1030	153	3.5	JUNE			
DEC.				18...	1530	15200	22.0
27...	1130	87	3.0	JULY			
JAN., 1979				25...	1520	328	27.0
22...	1215	473	1.0	AUG.			
FEB.				22...	1100	136	29.0
27...	1245	882	3.0				
MAR.							
27...	1230	653	6.0				
07170700 BIG HILL C NR CHERRYVALE, KS				(LAT 37 16 00 LONG 095 20 05)			
NOV., 1978				APR.			
15...	1210	1.7	5.0	6...	1030	9.7	2.0
27...	1345	25	3.5	23...	1430	4.2	16.5
DEC.				MAY			
11...	1435	0.06	1.0	21...	1230	72	16.5
19...	1530	0.05	4.5	JUNE			
JAN., 1979				21...	1130	2.1	24.0
3...	1330	0.01	0.0	JULY			
8...	1340	0.03	0.5	24...	1530	0.05	32.0
17...	1330	0.02	0.5	AUG.			
22...	1415	30	1.0	27...	1000	0.07	28.0
25...	1315	8.0	0.0				
FEB.							
27...	1100	12	3.5				

ARKANSAS RIVER BASIN

07172000 CANEY R NR ELGIN, KS (LAT 37 00 13 LONG 096 16 34)

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)
OCT., 1978				MAY			
2...	1030	0.25	22.0	11...	1215	94	16.0
NOV.				JUNE			
21...	1515	3.3	4.5	11...	1300	1340	20.0
DEC.				JULY			
19...	1100	2.2	6.5	19...	1345	29	26.0
JAN., 1979				AUG.			
17...	1230	2.0	3.5	9...	1300	5.6	28.0
FEB.				28...	1145	2.2	28.0
15...	1240	383	1.5	SEP.			
MAR.				24...	1230	0.15	25.0
22...	1340	257	6.0				
APR.							
18...	1130	159	15.5				

07179500 NEOSHO R AT COUNCIL GROVE, KS (LAT 38 39 54 LONG 096 29 30)

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)
OCT., 1978				MAR.			
23...	1150	4.3	13.5	20...	1220	283	6.0
DEC.				APR.			
4...	1120	3.2	2.5	17...	1325	133	8.5
FEB., 1979				AUG.			
22...	1230	2.3	1.0	20...	1155	7.4	28.0

07179730 NEOSHO R NR AMERICUS, KS (LAT 38 28 01 LONG 096 15 01)

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)
OCT., 1978				FEB.			
23...	1530	7.5	13.5	21...	1545	30	1.5
DEC.				JUNE			
4...	1405	15	4.5	6...	1155	50	23.0
JAN., 1979				AUG.			
8...	1420	8.2	0.0	20...	1505	24	26.5

07179795 COTTONWOOD R BL MARION LK, KS (LAT 38 22 00 LONG 097 05 00)

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)
OCT., 1978				APR.			
25...	0950	5.0	13.0	19...	1230	88	15.0
DEC.				JUNE			
6...	0845	2.3	2.0	5...	1120	6.9	23.0
MAR., 1979				AUG.			
22...	1150	4.8	8.0	22...	0930	13	22.0

07180400 COTTONWOOD R NR FLORENCE, KS (LAT 38 14 10 LONG 096 52 37)

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)
OCT., 1978				JUNE			
24...	1640	21	13.0	5...	1515	109	23.0
DEC.				8...	1635	2470	20.0
5...	1410	30	1.5	JULY			
JAN., 1979				11...	1445	423	27.0
9...	1540	23	0.0	AUG.			
MAR.				21...	1615	47	25.0
22...	0910	198	13.0				
APR.							
19...	0905	224	16.5				

07180500 CEDAR C NR CEDAR POINT, KS (LAT 38 11 55 LONG 096 49 22)

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)
OCT., 1978				JUNE			
24...	1400	0.58	10.5	5...	1000	226	19.0
DEC.				9...	0840	452	18.5
5...	1110	2.9	3.5	JULY			
JAN., 1979				11...	1000	25	27.0
9...	1235	3.2	0.0	AUG.			
MAR.				21...	1300	7.9	28.0
21...	1455	51	13.0				
APR.							
18...	1510	42	18.0				

07182250 COTTONWOOD R NR PLYMOUTH, KS (LAT 38 23 51 LONG 096 21 21)

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)
OCT., 1978				APR.			
24...	1015	26	11.5	18...	0945	611	18.0
DEC.				JUNE			
5...	0805	42	1.0	6...	1500	1630	22.0
JAN., 1979				JULY			
9...	0940	40	0.0	12...	1000	779	27.0
MAR.				AUG.			
21...	0940	1520	11.0	21...	0915	128	25.0

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)
ARKANSAS RIVER BASIN							
07182510 NEOSHO R AT BURLINGTON, KS				(LAT 38 11 40 LONG 095 44 10)			
OCT., 1978				JUNE			
2...	1210	45	20.5	4...	1215	137	22.5
NOV.				JULY			
17...	1240	18	8.5	13...	1000	8500	26.0
DEC.				AUG.			
11...	1200	17	4.0	13...	1210	135	25.0
JAN., 1979				SEP.			
8...	1245	17	0.0	17...	1135	138	20.5
FEB.							
5...	1300	18	0.5				
07183000 NEOSHO R NR IOLA, KS				(LAT 37 53 27 LONG 095 25 50)			
OCT., 1978				JUNE			
2...	1520	60	22.0	4...	1540	178	24.0
NOV.				JULY			
16...	1630	33	7.0	9...	1650	18200	22.0
DEC.				AUG.			
11...	1500	22	3.0	13...	1540	185	26.5
JAN., 1979				SEP.			
8...	1610	26	0.0	17...	1440	148	21.5
FEB.							
5...	1700	36	0.0				
07183500 NEOSHO R NR PARSONS, KS				(LAT 37 18 39 LONG 095 06 37)			
OCT., 1978				MAY			
3...	1745	34	22.0	9...	0930	1040	21.5
NOV.				JUNE			
15...	1610	46	9.5	6...	0745	219	25.5
DEC.				JULY			
12...	1650	30	5.0	11...	0925	20000	23.0
JAN., 1979				AUG.			
9...	1450	33	1.5	15...	1350	226	25.0
FEB.				SEP.			
6...	1420	83	0.0	19...	0830	134	21.5
MAR.							
7...	0915	4980	4.0				
28...	1230	5120	12.0				
07184000 LIGHTNING C NR MCCUNE, KS				(LAT 37 16 54 LONG 095 01 56)			
OCT., 1978				APR.			
3...	1555	0.19	18.5	11...	1055	955	11.0
NOV.				MAY			
15...	1425	0.02	6.5	9...	1255	26	22.0
DEC.				30...	1255	21	22.0
13...	0850	2.1	1.0	JUNE			
JAN., 1979				20...	0945	15	25.0
4...	1300	1.0	0.5	JULY			
9...	1620	1.0	1.5	11...	1310	30	26.0
FEB.				AUG.			
6...	1610	7.4	0.5	15...	0930	3.0	21.5
MAR.				SEP.			
7...	1245	56	6.0	19...	1015	0.02	17.0
07184300 CHERRY C NR HALLOWELL, KS				(LAT 37 09 46 LONG 094 59 43)			
OCT., 1978				APR.			
17...	1045	0.01	9.5	11...	1250	966	11.0
NOV.				12...	0920	567	12.5
14...	1030	0.01	10.0	MAY			
JAN., 1979				15...	1600	13	18.5
4...	0930	1.4	0.5	JUNE			
FEB.				20...	1215	13	25.0
14...	1010	6.8	1.0				
MAR.							
19...	1500	363	14.0				
07186040 COW C NR WEIR, KS				(LAT 37 18 35 LONG 094 40 48)			
OCT., 1978				MAR.			
16...	1255	3.8	15.0	19...	0915	1330	14.0
NOV.				APR.			
15...	0915	52	8.5	12...	0750	771	12.0
JAN., 1979				MAY			
2...	1330	7.1	0.5	15...	1330	30	18.5
FEB.				JUNE			
12...	1350	22	0.5	18...	1650	30	25.0

ALLEN COUNTY

WELL 24S 18E 28CDD 01 SITE NUMBER 375528095263701

24-18E-28CDD. K.G.S. DRILLED, WATER-TABLE OBSERVATION WELL IN ALLUVIUM. DEPTH 23 FEET, DIAMETER 6 INCHES. MEASURING POINT, TOP OF CASING, 1.7 FEET ABOVE LSD. MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 948. FEET

RECORDS AVAILABLE 1964, 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 2.30 FEET BELOW LAND SURFACE DATUM MAR 20, 1973.

LOWEST WATER LEVEL 16.10 FEET BELOW LAND SURFACE DATUM JUL 29, 1964.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 04, 1978 15.06 ; MAR 05, 1979 11.37 ; JUN 06, 1979 13.20 ; SEP 12, 1979 12.90

BARBER COUNTY

WELL 31S 15W 19BDB 01 SITE NUMBER 372003098594401

31-15W-19BDB. D. S. SHAW. DRILLED, UNUSED, WATER-TABLE OBSERVATION WELL IN DEPOSITS OF PERMIAN AGE. DEPTH 96.5 FEET, DIAMETER 8 TO 6 INCHES. MEASURING POINT, TOP OF WELL COVER, 1.05 FEET ABOVE LSD.

ALTITUDE OF LAND SURFACE 1745. FEET

RECORDS AVAILABLE 1940 - 1964, 1966 - 1967, 1969, 1971 - 1972, 1974 TO CURRENT YEAR.

HIGHEST WATER LEVEL 34.45 FEET BELOW LAND SURFACE DATUM DEC 17, 1974.

LOWEST WATER LEVEL 82.99 FEET BELOW LAND SURFACE DATUM OCT 17, 1940.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 28, 1978 73.6 .

WELL 32S 11W 30BBA 01 SITE NUMBER 371414098334701

32-11W-30BBA. U.S.G.S. DRILLED, WATER-TABLE OBSERVATION WELL IN ALLUVIUM. DIAMETER 1.25 INCHES, DEPTH 32 FEET. MEASURING POINT, TOP OF PIPE, 3.00 FEET ABOVE LSD. G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 1450. FEET

RECORDS AVAILABLE 1963 TO CURRENT YEAR.

HIGHEST WATER LEVEL 2.30 FEET BELOW LAND SURFACE DATUM MAR 19, 1973.

LOWEST WATER LEVEL 6.63 FEET BELOW LAND SURFACE DATUM AUG 27, 1964.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 28, 1978 4.41 ; APR 06, 1979 3.66 ; JUN 26, 1979 4.40 .

WELL 32S 12W 04DBC 01 SITE NUMBER 371710098374501

32-12W-4DBC. (4) MADGE EVANS. DRILLED, WATER-TABLE IRRIGATION WELL IN ALLUVIUM. DIAMETER 16 INCHES, DEPTH 66 FEET. MEASURING POINT, TOP SOUTH SIDE OF PUMP BASE, 0.80 FOOT ABOVE LSD. G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 1480. FEET

RECORDS AVAILABLE 1940 TO CURRENT YEAR.

HIGHEST WATER LEVEL 12.50 FEET BELOW LAND SURFACE DATUM JUN 22, 1949.

LOWEST WATER LEVEL 19.40 FEET BELOW LAND SURFACE DATUM SEP 16, 1964.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 28, 1978 15.59 ; APR 06, 1979 15.07 ; JUN 26, 1979 15.76 .

BARBER COUNTY -- CONTINUED

WELL 33S 11W 28CBB 01 SITE NUMBER 370837098314201

33-11W-28CBB ALBERT HARBAUGH, DRILLED WATER-TABLE WELL IN ALLUVIUM, DIAMETER 6 INCHES, DEPTH 29 FEET, MEASURING POINT, TOP WEST EDGE OF 6-INCH COUPLING, 2.50 FEET ABOVE LSD. G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 1360. FEET

RECORDS AVAILABLE 1963 TO CURRENT YEAR.

HIGHEST WATER LEVEL 1.73 FEET BELOW LAND SURFACE DATUM SEP 25, 1973.

LOWEST WATER LEVEL 5.23 FEET BELOW LAND SURFACE DATUM JUL 30, 1964.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 28, 1978 3.9 ; JUN 26, 1979 4.39 .

WELL 34S 15W 17ADA 01 SITE NUMBER 370522098575401

34-15W-17ADA (8) P. BRACK, DUG, UNUSED, WATER-TABLE WELL IN ALLUVIUM, DIAMETER 36 INCHES, DEPTH 26 FEET, CRIBBED WITH BRICK, MEASURING POINT, TOP NORTH SIDE OF CURB, 0.60 FOOT ABOVE LSD. G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 1630. FEET

RECORDS AVAILABLE 1940 - 1964, 1966 - 1967, 1969, 1971 - 1972, 1974 TO CURRENT YEAR.

HIGHEST WATER LEVEL 8.87 FEET BELOW LAND SURFACE DATUM NOV 21, 1941.

LOWEST WATER LEVEL 21.33 FEET BELOW LAND SURFACE DATUM DEC 28, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 28, 1978 21.33 .

WELL 35S 15W 11CB 01 SITE NUMBER 370047098552901

35-15W-11CB. (10) G. H. DAVIS. DRILLED, UNUSED WATER-TABLE WELL IN DEPOSITS OF PERMIAN AGE. DIAMETER 5 INCHES, DEPTH 152 FEET. MEASURING POINT, TOP OF CASING, 0.10 FOOT BELOW LSD. G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 1620. FEET

RECORDS AVAILABLE 1940 - 1964, 1966 - 1967, 1969, 1971 - 1972, 1974 TO CURRENT YEAR.

HIGHEST WATER LEVEL 102.08 FEET BELOW LAND SURFACE DATUM DEC 19, 1975.

LOWEST WATER LEVEL 107.72 FEET BELOW LAND SURFACE DATUM SEP 25, 1948.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 28, 1978 102.63 .

BARTON COUNTY

WELL 18S 15W 28CCC 03 SITE NUMBER 382704098593803

18-15W-28CCC3. (109A) U.S.G.S. DRILLED, WATER-TABLE OBSERVATION WELL IN ALLUVIUM, DIAMETER 1.25 INCHES, DEPTH 68 FEET, MEASURING POINT, TOP OF PIPE, 4.00 FEET ABOVE LSD. REPLACEMENT FOR 18-15W-28CCC. G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 1912.5 FEET

RECORDS AVAILABLE 1960 TO CURRENT YEAR.

HIGHEST WATER LEVEL 4.86 FEET BELOW LAND SURFACE DATUM NOV 20, 1961.

LOWEST WATER LEVEL 21.38 FEET BELOW LAND SURFACE DATUM SEP 19, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 27, 1978 18.78 ; MAR 20, 1979 17.43 ; MAR 29, 1979 18.78 ; SEP 19, 1979 21.38 .

BOURBON COUNTY

WELL 25S 24E 36AAC 01 SITE NUMBER 374953094425901

25-24E-36AAC. CITY OF FT. SCOTT. DRILLED WATER-TABLE ABANDONED MUNICIPAL WELL IN ROUBIDOUX FORMATION. DIAMETER 16 INCHES, DEPTH 700 FEET. MEASURING POINT, HOLE IN CENTER OF COVER PLATE, 0.30 FOOT ABOVE LSD. MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 916. FEET

RECORDS AVAILABLE 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 181.77 FEET BELOW LAND SURFACE DATUM JUN 06, 1979.

LOWEST WATER LEVEL 183.42 FEET BELOW LAND SURFACE DATUM OCT 30, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 30, 1978 183.42 ; DEC 05, 1978 182.5 ; MAR 06, 1979 182.08 ; JUN 06, 1979 181.77 ;
SEP 13, 1979 181.96 .

CHEROKEE COUNTY

WELL 33S 25E 09DAD 01 SITE NUMBER 371055094401701

33-25E-9DAD. SPENCER SCHOOL. DRILLED, UNUSED, ARTESIAN OBSERVATION WELL IN THE ROUBIDOUX FORMATION. DEPTH 1016 FEET, DIAMETER 7 INCHES. MEASURING POINT, HOLE IN CASING COVER, 1.2 FEET ABOVE LSD. DISCONTINUED JANUARY 1978.

ALTITUDE OF LAND SURFACE 885. FEET

RECORDS AVAILABLE 1964, 1975 TO CURRENT YEAR.

HIGHEST WATER LEVEL 75.30 FEET BELOW LAND SURFACE DATUM JUN 05, 1975.

LOWEST WATER LEVEL 84.05 FEET BELOW LAND SURFACE DATUM MAR 05, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 30, 1978 82.44 ; DEC 04, 1978 82.76 ; MAR 05, 1979 84.05 ; JUN 06, 1979 82.72 .

WELL 34S 25E 13BAC 01 SITE NUMBER 370514094373901

34-25E-13BAC. GALENA SMELTER. DRILLED, UNUSED, ARTESIAN OBSERVATION WELL IN THE ROUBIDOUX FORMATION. DEPTH 1150 FEET, DIAMETER 8 - 6 INCHES. MEASURING POINT, TOP OF RECORDER FLOOR, 3.0 FEET ABOVE LSD.

ALTITUDE OF LAND SURFACE 890. FEET

RECORDS AVAILABLE 1932, 1975 TO CURRENT YEAR.

HIGHEST WATER LEVEL 72.13 FEET BELOW LAND SURFACE DATUM DEC 12, 1977.

LOWEST WATER LEVEL 115.79 FEET BELOW LAND SURFACE DATUM MAR 10, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 05, 1978	102.26	NOV 30, 1978	107.17	FEB 25, 1979	109.82	MAY 10, 1979	103.90
10	102.42	DEC 04	107.28	MAR 05	108.93	15	104.00
15	100.00	05	107.05	10	108.44	JUN 06	103.40
20	99.60	10	107.97	15	108.15	10	103.82
25	101.38	15	108.03	20	107.32	15	103.14
30	104.35	20	108.02	25	106.87	20	103.40
31	104.77	25	108.17	31	106.48	25	103.75
NOV 05	105.93	31	107.97	APR 05	106.24	30	103.92
10	105.82	FEB 05, 1979	110.70	10	105.95	JUL 05	103.97
15	107.12	10	111.08	15	105.60	10	101.35
20	106.73	15	111.07	20	103.18	15	99.78
25	106.87	20	110.13	MAY 05	104.00	SEP 12	105.60

CLARK COUNTY

WELL 30S 23W 06AAA 01 SITE NUMBER 372758099520401

30-23W-6AAA, ARNOLD HOUFF, DRILLED, WATER-TABLE DOMESTIC AND STOCK WELL IN OGALLALA FORMATION. DIAMETER 6 INCHES, DEPTH 160 FEET, MEASURING POINT, TOP OF CRACK IN PUMP, 1.40 FEET ABOVE LSD. G = MEASURED BY K.S.B.A. MEASURING POINT CHANGED TO 0.7 FOOT ABOVE LSD, APRIL 1963.

ALTITUDE OF LAND SURFACE 2556.7 FEET

RECORDS AVAILABLE 1939, 1952 TO CURRENT YEAR.

HIGHEST WATER LEVEL 135.90 FEET BELOW LAND SURFACE DATUM JAN 17, 1961.

LOWEST WATER LEVEL 143.54 FEET BELOW LAND SURFACE DATUM DEC 17, 1974.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 28, 1978 140.07 ; APR 06, 1979 140.66 ; JUN 26, 1979 140.80 .

WELL 33S 22W 30CBC 01 SITE NUMBER 370822099452801

33-22W-30CBC, KATHERINE KLINGER, DRILLED, WATER-TABLE IRRIGATION WELL IN DEPOSITS OF PLEISTOCENE AGE. DIAMETER 18 INCHES, DEPTH 168 FEET. MEASURING POINT, FLAP OPENING ON WEST SIDE OF PUMP, 0.71 FOOT ABOVE L.S.D. G = MEASURED BY K.S.B.A.

RECORDS AVAILABLE 1961 TO CURRENT YEAR.

HIGHEST WATER LEVEL 12.09 FEET BELOW LAND SURFACE DATUM JAN 09, 1974.

LOWEST WATER LEVEL 25.76 FEET BELOW LAND SURFACE DATUM JUN 16, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 28, 1978 16.49 ; APR 06, 1979 22.26 ; JUN 26, 1979 21.40 .

COMANCHE COUNTY

WELL 31S 18W 19ACB 01 SITE NUMBER 371958099190101

31-18W-19ACB, (3) E. DEEWALL, DRILLED, WATER-TABLE STOCK WELL IN THE OGALLALA FORMATION. DEPTH 96 FEET, DIAMETER 6 INCHES. REMEASURED OCTOBER 1961, 89 FEET. MEASURING POINT, TOP NORTH SIDE OF CASING BELOW PUMP BASE, 1.4 FEET ABOVE LSD. MEASURED BY K.S.B.A.

RECORDS AVAILABLE 1940 - 1943, 1945 - 1947, 1953, 1955, 1957 TO CURRENT YEAR.

HIGHEST WATER LEVEL 68.58 FEET BELOW LAND SURFACE DATUM MAR 24, 1975.

LOWEST WATER LEVEL 94.07 FEET BELOW LAND SURFACE DATUM JUN 08, 1945.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 28, 1978 73.13 ; APR 06, 1979 72.59 ; JUN 26, 1979 73.85 .

CRAWFORD COUNTY

WELL 29S 23E 24DBA 01 SITE NUMBER 373020094501801

29-23E-24DBA, CITY OF GIRARD, DRILLED, UNUSED, WATER-TABLE MUNICIPAL WELL IN THE ROUBIDOUX FORMATION. DEPTH 1212 FEET, DIAMETER 16 INCHES. MEASURING POINT, TOP CUT-OUT OF PUMP, 2.0 FEET ABOVE LSD. MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 995. FEET

RECORDS AVAILABLE 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 299.25 FEET BELOW LAND SURFACE DATUM JUN 05, 1978.

LOWEST WATER LEVEL 303.1 FEET BELOW LAND SURFACE DATUM SEP 11, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 30, 1978 303.1 ; DEC 04, 1978 302.24 ; MAR 05, 1979 301.84 ; JUN 06, 1979 300.00 ;

SEP 12, 1979 301.50 .

WELL 30S 24E 19ADD 01 SITE NUMBER 372509094485501

30-24E-19ADD, ANGELO AND HUGO FARABI, DRILLED, UNUSED MUNICIPAL WELL IN ROUBIDOUX FORMATION. DIAMETER 16 INCHES, DEPTH 955 FEET. MEASURING POINT, HOLE IN CENTER OF COVER, 1.40 FEET ABOVE LSD. MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 920. FEET

RECORDS AVAILABLE 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 247.4 FEET BELOW LAND SURFACE DATUM JUN 05, 1978.

LOWEST WATER LEVEL 253.6 FEET BELOW LAND SURFACE DATUM SEP 11, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 30, 1978 251.55 ; DEC 04, 1978 250.60 ; MAR 05, 1979 249.55 ; JUN 06, 1979 247.92 ;

SEP 12, 1979 250.90 .

EDWARDS COUNTY

WELL 23S 19W 22CCC 01 SITE NUMBER 380145099241301

23-19W-22CCC. (1U) E. F. LIPPOLDT, DUG, UNUSED, WATER-TABLE DOMESTIC WELL IN THE DAKOTA FORMATION. DEPTH 68 FEET, DIAMETER 4.5 FEET, CRIBBED WITH ROCK. MEASURING POINT, TOP OF HOLE IN CONCRETE COVER, 0.6 FOOT ABOVE LSD. MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 2238. FEET

RECORDS AVAILABLE 1944 TO CURRENT YEAR.

HIGHEST WATER LEVEL 59.85 FEET BELOW LAND SURFACE DATUM JUN 27, 1979.

LOWEST WATER LEVEL 60.20 FEET BELOW LAND SURFACE DATUM MAR 13, 1946.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 05, 1978 59.9 ; APR 17, 1979 59.93 ; JUN 27, 1979 59.85 .

WELL 24S 17W 24DDD 01 SITE NUMBER 375629099075901

24-17W-24DDD. KANSAS GEOLOGICAL SURVEY. AUGERED, WATER-TABLE OBSERVATION WELL IN DEPOSITS OF PLEISTOCENE AGE. DEPTH 61 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 4.3 FEET ABOVE LSD.

ALTITUDE OF LAND SURFACE 2100. FEET

RECORDS AVAILABLE 1973 TO CURRENT YEAR.

HIGHEST WATER LEVEL 13.31 FEET BELOW LAND SURFACE DATUM DEC 13, 1973.

LOWEST WATER LEVEL 23.87 FEET BELOW LAND SURFACE DATUM SEP 21, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 04, 1978 22.62 ; JAN 04, 1979 22.5 ; FEB 15, 1979 22.55 ; APR 17, 1979 22.63 ;
JUL 02, 1979 23.40 ; SEP 21, 1979 23.87 .

WELL 24S 18W 36DDC 01 SITE NUMBER 375445099143901

24-18W-36DDC. GROVER J. MCLEAN. DRILLED, WATER-TABLE IRRIGATION WELL IN DEPOSITS OF PLEISTOCENE AGE. DEPTH 79 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN SOUTHEAST CORNER OF PUMP BASE, AT LAND SURFACE.

ALTITUDE OF LAND SURFACE 2149. FEET

RECORDS AVAILABLE 1972 TO CURRENT YEAR.

HIGHEST WATER LEVEL 23.60 FEET BELOW LAND SURFACE DATUM MAR 21, 1974.

LOWEST WATER LEVEL 33.15 FEET BELOW LAND SURFACE DATUM SEP 21, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 04, 1979 31.85 ; FEB 06, 1979 31.9 ; APR 17, 1979 31.8 ; JUL 02, 1979 32.37 ;
SEP 21, 1979 33.15 .

WELL 24S 19W 34ADD 01 SITE NUMBER 375513099231701

24-19W-34ADD. (1A) U.S.G.S. BORED, WATER-TABLE OBSERVATION WELL IN ALLUVIUM. DEPTH 30 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 2.43 FEET ABOVE LSD. MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 2160. FEET

RECORDS AVAILABLE 1961 TO CURRENT YEAR.

HIGHEST WATER LEVEL 5.99 FEET BELOW LAND SURFACE DATUM DEC 21, 1965.

LOWEST WATER LEVEL 10.11 FEET BELOW LAND SURFACE DATUM SEP 20, 1976.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 04, 1978 9.19 ; JAN 04, 1979 9.72 ; APR 17, 1979 . 9.25 ; JUL 02, 1979 9.21 ;
SEP 21, 1979 9.01 .

EDWARDS COUNTY -- CONTINUED

WELL 25S 16W 31DAD 01 SITE NUMBER 374940099065101

25-16W-31DAD. F. B. MAYHEW, DRILLED, UNUSED, WATER-TABLE OBSERVATION WELL IN THE OGALLALA FORMATION. DEPTH 42 FEET, DIAMETER 1.50 INCHES. MEASURING POINT, TOP SOUTH SIDE OF PIPE, 0.8 FOOT ABOVE LSD. MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 2090. FEET

RECORDS AVAILABLE 1957 TO CURRENT YEAR.

HIGHEST WATER LEVEL 15.50 FEET BELOW LAND SURFACE DATUM AUG 20, 1958.

LOWEST WATER LEVEL 22.08 FEET BELOW LAND SURFACE DATUM MAR 27, 1969.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 28, 1978 20.99 ; APR 06, 1979 21.09 ; JUN 26, 1979 21.16 ; SEP 21, 1979 21.39 .

WELL 25S 18W 09AAA 01 SITE NUMBER 375346099174801

25-18W-9AAA. KANSAS GEOLOGICAL SURVEY, DRILLED, UNUSED, WATER-TABLE OBSERVATION WELL IN DEPOSITS OF PLEISTOCENE AGE. DEPTH 74 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 3.0 FEET ABOVE LSD.

ALTITUDE OF LAND SURFACE 2161. FEET

RECORDS AVAILABLE 1973 TO CURRENT YEAR.

HIGHEST WATER LEVEL 15.61 FEET BELOW LAND SURFACE DATUM DEC 14, 1973.

LOWEST WATER LEVEL 24.49 FEET BELOW LAND SURFACE DATUM SEP 21, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 04, 1979 23. ; FEB 06, 1979 23. ; APR 17, 1979 22.87 ; JUL 02, 1979 23.37 ;

SEP 21, 1979 24.49 .

WELL 25S 18W 33CDC 01 SITE NUMBER 374931099182901

25-18W-33CDC. GROVER J. MCLEAN, DRILLED, WATER-TABLE IRRIGATION WELL IN DEPOSITS OF PLEISTOCENE AGE. DEPTH 90 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN NORTHWEST CORNER OF PUMP BASE, 0.5 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 2182. FEET

RECORDS AVAILABLE 1972 TO CURRENT YEAR.

HIGHEST WATER LEVEL 21.25 FEET BELOW LAND SURFACE DATUM MAR 21, 1974.

LOWEST WATER LEVEL 28.02 FEET BELOW LAND SURFACE DATUM SEP 25, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 04, 1979 24.85 ; FEB 06, 1979 24.8 ; APR 17, 1979 23.84 ; SEP 21, 1979 25.75 .

WELL 26S 19W 12ABB 01 SITE NUMBER 374803099205401

26-19W-12ABB. PAUL LORENZEN, DRILLED, WATER-TABLE IRRIGATION WELL IN THE GRAND ISLAND FORMATION. DEPTH 75 FEET, DIAMETER 16 INCHES. MEASURING POINT, TOP OF CASING, 1.0 FOOT ABOVE LSD. MEASURED BY K.S.B.A. REPLACED BY 26S 19W 12ABB 02, JANUARY 1979.

ALTITUDE OF LAND SURFACE 2210. FEET

RECORDS AVAILABLE 1966 - 1974, 1976 TO CURRENT YEAR.

HIGHEST WATER LEVEL 35.48 FEET BELOW LAND SURFACE DATUM DEC 14, 1973.

LOWEST WATER LEVEL 48.15 FEET BELOW LAND SURFACE DATUM OCT 05, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

FEB 06, 1979 40.9 .

EDWARDS COUNTY -- CONTINUED

WELL 26S 19W 12ABB 02 SITE NUMBER 374803099205402

26-19W-12ABB2. JAMES KLINE. DRILLED, WATER-TABLE DOMESTIC WELL. DEPTH 100 FEET, DIAMETER 5 INCHES. MEASURING POINT, TOP OF CASING, 1.5 FEET ABOVE LSD. MEASURED BY K.S.B.A. REPLACES 16-19W-12ABB, JANUARY 1979.

RECORDS AVAILABLE 1979 TO CURRENT YEAR.

HIGHEST WATER LEVEL 42.63 FEET BELOW LAND SURFACE DATUM JUN 26, 1979.

LOWEST WATER LEVEL 43.34 FEET BELOW LAND SURFACE DATUM SEP 21, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 04, 1979 42.7 ; APR 17, 1979 42.7 ; JUN 26, 1979 42.63 ; SEP 21, 1979 43.34 .

ELLSWORTH COUNTY

WELL 17S 09W 20BCD 01 SITE NUMBER 383335098204601

17-9W-20BCD. ALBERT KRUSE. DRILLED, WATER-TABLE DOMESTIC AND STOCK WELL. DIAMETER 6 INCHES, DEPTH 63 FEET. MEASURING POINT, STEEL RIM IN CONCRETE BASE, 0.8 FOOT ABOVE LSD. MEASURED BY K.S.B.A.

RECORDS AVAILABLE 1961, 1966 TO CURRENT YEAR.

HIGHEST WATER LEVEL 18.10 FEET BELOW LAND SURFACE DATUM MAR 17, 1975.

LOWEST WATER LEVEL 33.2 FEET BELOW LAND SURFACE DATUM MAR 15, 1961.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 20, 1978 24.86 ; MAR 27, 1979 22.27 ; JUN 18, 1979 23.36 ; SEP 13, 1979 25.16 .

WELL 17S 09W 21BCC 01 SITE NUMBER 383334098194701

17-9W-21BCC. NORTHERN GAS PRODUCTS. DRILLED, WATER-TABLE OBSERVATION WELL IN DAKOTA FORMATION. DIAMETER 2 INCHES, DEPTH 200 FEET. MEASURING POINT, TOP OF PIPE, 2.40 FEET ABOVE LSD. G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 1775. FEET

RECORDS AVAILABLE 1966 TO CURRENT YEAR.

HIGHEST WATER LEVEL 82.40 FEET BELOW LAND SURFACE DATUM MAY 19, 1971.

LOWEST WATER LEVEL 136.20 FEET BELOW LAND SURFACE DATUM SEP 13, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 20, 1978 91.08 ; MAR 27, 1979 85.31 ; JUN 18, 1979 126.24 ; SEP 13, 1979 136.20 .

ELLSWORTH COUNTY -- CONTINUED

WELL 17S 09W 21BCC 02 SITE NUMBER 383334098194702

17-9W-21BCC2. NORTHERN GAS PRODUCTS. DRILLED, WATER-TABLE OBSERVATION WELL IN DEPOSITS OF PLEISTOCENE AGE. DEPTH 65 FEET, DIAMETER 2 INCHES, MEASURING POINT, TOP OF PIPE, 2.6 FEET ABOVE LSD. MEASURED BY K.S.B.A.

RECORDS AVAILABLE 1966 TO CURRENT YEAR.

HIGHEST WATER LEVEL 31.74 FEET BELOW LAND SURFACE DATUM JUN 23, 1976.

LOWEST WATER LEVEL 37.38 FEET BELOW LAND SURFACE DATUM OCT 17, 1968.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 20, 1978 35.63 : MAR 27, 1979 35.2 : JUN 18, 1979 35.19 : SEP 13, 1979 33.82 .

WELL 17S 09W 28CBB 01 SITE NUMBER 383236098194701

17-9W-28CBB. NORTHERN GAS PRODUCTS. DRILLED, WATER-TABLE OBSERVATION WELL IN DAKOTA FORMATION. DIAMETER 2 INCHES, DEPTH 207 FEET. MEASURING POINT, TOP OF PIPE, 2.40 FEET ABOVE LSD.
G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 1766. FEET

RECORDS AVAILABLE 1966 TO CURRENT YEAR.

HIGHEST WATER LEVEL 71.38 FEET BELOW LAND SURFACE DATUM MAY 19, 1971.

LOWEST WATER LEVEL 132.35 FEET BELOW LAND SURFACE DATUM SEP 13, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 20, 1978 85.69 : MAR 27, 1979 80.12 : JUN 18, 1979 110.66 : SEP 13, 1979 132.35 .

WELL 17S 09W 28CBB 02 SITE NUMBER 383236098194702

17-9W-28CBB2. NORTHERN GAS PRODUCTS. DRILLED, WATER-TABLE OBSERVATION WELL IN DEPOSITS OF PLEISTOCENE AGE. DEPTH 77 FEET, DIAMETER 2 INCHES, MEASURING POINT, TOP OF PIPE, 2.7 FEET ABOVE LSD. MEASURED BY K.S.B.A.

RECORDS AVAILABLE 1966 TO CURRENT YEAR.

HIGHEST WATER LEVEL 34.97 FEET BELOW LAND SURFACE DATUM SEP 18, 1975.

LOWEST WATER LEVEL 48.67 FEET BELOW LAND SURFACE DATUM FEB 04, 1969.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 20, 1978 37.96 : MAR 27, 1979 37.75 : JUN 18, 1979 37.69 : SEP 13, 1979 37.31 .

WELL 17S 09W 31AAB 01 SITE NUMBER 383210098211001

17-9W-31AAB. NORTHERN GAS PRODUCTS. DRILLED, WATER-TABLE OBSERVATION WELL IN DAKOTA FORMATION. DIAMETER 2 INCHES, DEPTH 162 FEET. MEASURING POINT, TOP OF PIPE, 2.70 FEET ABOVE LSD.
G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 1762. FEET

RECORDS AVAILABLE 1966 TO CURRENT YEAR.

HIGHEST WATER LEVEL 74.50 FEET BELOW LAND SURFACE DATUM MAY 19, 1971.

LOWEST WATER LEVEL 120.57 FEET BELOW LAND SURFACE DATUM AUG 20, 1969.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 20, 1978 97.87 : MAR 27, 1979 93.01 : JUN 18, 1979 107.16 : SEP 13, 1979 120.06 .

ELLSWORTH COUNTY -- CONTINUED

WELL 17S 09W 31AAB 02 SITE NUMBER 383210098211002

17-9W-31AAB2, NORTHERN GAS PRODUCTS, DRILLED, WATER-TABLE OBSERVATION WELL IN DEPOSITS OF PLEISTOCENE AGE. DEPTH 89 FEET, DIAMETER 2 INCHES. MEASURING POINT, TOP OF PIPE, 2.3 FEET ABOVE LSD. MEASURED BY K.S.B.A.

RECORDS AVAILABLE 1966 TO CURRENT YEAR.

HIGHEST WATER LEVEL 26.98 FEET BELOW LAND SURFACE DATUM DEC 20, 1978.

LOWEST WATER LEVEL 41.29 FEET BELOW LAND SURFACE DATUM JAN 25, 1971.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 20, 1978 26.98 ; MAR 27, 1979 29.07 ; JUN 18, 1979 30.55 ; SEP 13, 1979 32.07 .

WELL 17S 09W 31ADC 01 SITE NUMBER 383150098211001

17-9W-31ADC, HYDROCARBON TRAN., INC. DRILLED, WATER-TABLE OBSERVATION WELL IN DEPOSITS OF PLEISTOCENE AGE. DEPTH 245 FEET, DIAMETER 6 INCHES. MEASURING POINT, TOP OF CASING, 0.6 FOOT ABOVE LSD. MEASURED BY K.S.B.A.

RECORDS AVAILABLE 1966 TO CURRENT YEAR.

HIGHEST WATER LEVEL 63.20 FEET BELOW LAND SURFACE DATUM SEP 22, 1972.

LOWEST WATER LEVEL 121.75 FEET BELOW LAND SURFACE DATUM AUG 28, 1969.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 20, 1978 91.05 ; MAR 27, 1979 85.91 ; JUN 18, 1979 97.82 ; SEP 13, 1979 109.20 .

FINNEY COUNTY

WELL 21S 32W 20CBD 01 SITE NUMBER 381242100514201

21-32W-20CBD, L. ARCHER, DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 203 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN PUMP BASE, 0.30 FOOT ABOVE LSD. G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 2898. FEET

RECORDS AVAILABLE 1964 TO CURRENT YEAR.

HIGHEST WATER LEVEL 44.22 FEET BELOW LAND SURFACE DATUM MAR 15, 1965.

LOWEST WATER LEVEL 86.20 FEET BELOW LAND SURFACE DATUM SEP 22, 1976.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 09, 1979 83.47 ; MAR 26, 1979 85.94 ; JUL 02, 1979 86.81 ; SEP 11, 1979 87.74 .

WELL 21S 34W 14DBB 01 SITE NUMBER 381340101010701

21-34W-14DBB, PAT MCHUGH, DRILLED, WATER-TABLE IRRIGATION WELL IN NIOBRARA CHALK. DEPTH 141 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN NORTH SIDE OF PUMP BASE, 0.9 FOOT ABOVE LSD. MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 2947. FEET

RECORDS AVAILABLE 1961 TO CURRENT YEAR.

HIGHEST WATER LEVEL 63.58 FEET BELOW LAND SURFACE DATUM SEP 29, 1964.

LOWEST WATER LEVEL 109.46 FEET BELOW LAND SURFACE DATUM SEP 21, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 09, 1979 99.98 ; MAR 26, 1979 100.22 .

FINNEY COUNTY -- CONTINUED

WELL 22S 27W 14ADC 01 SITE NUMBER 380823100144801

22-27W-14ADC. LOUIS OMEY. DRILLED, WATER-TABLE IRRIGATION WELL IN DAKOTA FORMATION. DEPTH 395 FEET, DIAMETER 16 INCHES. MEASURING POINT, PLUG IN NORTHEAST CORNER OF PUMP BASE, 0.5 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 2458. FEET

RECORDS AVAILABLE 1970 TO CURRENT YEAR.

HIGHEST WATER LEVEL 137.08 FEET BELOW LAND SURFACE DATUM MAR 11, 1971.

LOWEST WATER LEVEL 201.25 FEET BELOW LAND SURFACE DATUM SEP 16, 1971.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 09, 1979 187.4 ; MAR 06, 1979 178.79 ; JUN 28, 1979 187.44 .

WELL 22S 33W 22BAA 01 SITE NUMBER 380801100554801

22-33W-22BAA. D. TRENT. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 184 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN WEST SIDE OF PUMP BASE, 0.1 FOOT ABOVE LSD. G * MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 2900.0 FEET

RECORDS AVAILABLE 1960, 1962 - 1963, 1965 TO CURRENT YEAR.

HIGHEST WATER LEVEL 37.03 FEET BELOW LAND SURFACE DATUM FEB 01, 1962.

LOWEST WATER LEVEL 98.37 FEET BELOW LAND SURFACE DATUM SEP 11, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 09, 1979 88.9 ; MAR 26, 1979 90.56 R; SEP 11, 1979 98.37 .

WELL 22S 33W 36AAA 02 SITE NUMBER 380616100530402

22-33W-36AAA2. GEORGE H. HAHN. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 190 FEET, DIAMETER 16 INCHES. MEASURING POINT, 1-INCH HOLE IN STEEL CAP, TOP OF CASING, 3.5 FEET ABOVE LSD. G * MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 2860. FEET

RECORDS AVAILABLE 1958, 1963 TO CURRENT YEAR.

HIGHEST WATER LEVEL 18.46 FEET BELOW LAND SURFACE DATUM MAR 18, 1964.

LOWEST WATER LEVEL 85.58 FEET BELOW LAND SURFACE DATUM SEP 14, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 09, 1979 66.29 ; MAR 26, 1979 69.07 ; JUL 02, 1979 78.08 ; SEP 11, 1979 77.54 .

WELL 22S 34W 26ADD 01 SITE NUMBER 380648101004301

22-34W-26ADD. TRINKLE ESTATE. DRILLED, UNUSED, WATER-TABLE DOMESTIC AND STOCK WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS. DEPTH 163 FEET, DIAMETER 5 INCHES. MEASURING POINT, TOP EDGE OF 3 X 3 WOOD CLAMP, 0.9 FOOT ABOVE LSD. MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 2928. FEET

RECORDS AVAILABLE 1957 TO CURRENT YEAR.

HIGHEST WATER LEVEL 49.43 FEET BELOW LAND SURFACE DATUM MAR 31, 1959.

LOWEST WATER LEVEL 143.41 FEET BELOW LAND SURFACE DATUM SEP 19, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

MAR 26, 1979 136.34 ; JUL 02, 1979 138.44 ; SEP 19, 1979 143.41 .

FINNEY COUNTY -- CONTINUED

WELL 23S 27W 12CCC 01 SITE NUMBER 380333100143301

23-27W-12CCC. C. R. NIXON. DRILLED, UNUSED, WATER-TABLE OBSERVATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 72 FEET, DIAMETER 6 INCHES. MEASURING POINT, 1-INCH BOARD ON TOP OF CONCRETE BLOCK, 0.6 FOOT ABOVE LSD. MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 2610. FEET

RECORDS AVAILABLE 1939 - 1942, 1952 TO CURRENT YEAR.

HIGHEST WATER LEVEL 61.74 FEET BELOW LAND SURFACE DATUM JAN 21, 1974.

LOWEST WATER LEVEL 68.49 FEET BELOW LAND SURFACE DATUM OCT 02, 1961.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 09, 1979 62.24 ; MAR 06, 1979 62.14 ; JUN 28, 1979 62.40 ; SEP 06, 1979 62.24 .

WELL 23S 33W 17BBB 01 SITE NUMBER 380339100582401

23-33W-17BBB. GARDEN CITY CO. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 340 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN EAST SIDE OF PUMP BASE, 1.3 FEET ABOVE LSD. G = MEASURED BY U.S.B.R.

ALTITUDE OF LAND SURFACE 2904. FEET

RECORDS AVAILABLE 1958, 1961 - 1976, 1978 TO CURRENT YEAR.

HIGHEST WATER LEVEL 40.8 FEET BELOW LAND SURFACE DATUM APR 28, 1958.

LOWEST WATER LEVEL 141.48 FEET BELOW LAND SURFACE DATUM DEC 28, 1976.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 08, 1979 138.21 .

WELL 23S 33W 28CDC 01 SITE NUMBER 380109100570201

23-33W-28CDC. ANDREW BURGHARDT. DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FORMATION. DIAMETER 16 INCHES, DEPTH 300 FEET. MEASURING POINT, TOP OF CONCRETE BASE NORTH SIDE, 1.00 FOOT ABOVE LSD. G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 2904. FEET

RECORDS AVAILABLE 1958, 1966 TO CURRENT YEAR.

HIGHEST WATER LEVEL 50.2 FEET BELOW LAND SURFACE DATUM APR 01, 1958.

LOWEST WATER LEVEL 141.81 FEET BELOW LAND SURFACE DATUM JUL 02, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 08, 1979 127.89 ; MAR 26, 1979 130.16 ; JUL 02, 1979 141.81 ; SEP 19, 1979 160.81 S.

WELL 23S 34W 21DDC 01 SITE NUMBER 380201101030101

23-34W-21DDC. P. W. TURRENTINE. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 300 FEET, DIAMETER 16 INCHES. MEASURING POINT, TOP OF CONCRETE, 0.3 FOOT ABOVE LSD. MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 2961. FEET

RECORDS AVAILABLE 1958, 1965 TO CURRENT YEAR.

HIGHEST WATER LEVEL 51.3 FEET BELOW LAND SURFACE DATUM MAY 13, 1958.

LOWEST WATER LEVEL 177.86 FEET BELOW LAND SURFACE DATUM SEP 19, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 05, 1978	169.10	DEC 20, 1978	142.85	MAR 05, 1979	132.70	MAY 15, 1979	160.60
10	167.28	25	141.95	10	141.30	20	161.20
15	166.89	31	140.80	15	148.57	25	164.68
20	164.22	JAN 05, 1979	139.96	20	145.70	31	156.02
25	159.50	08	139.48	25	140.20	JUN 05	161.86
31	155.68	10	139.18	29	139.82	10	154.72
NOV 05	154.43	15	138.19	31	148.07	15	158.73
10	161.68	20	137.65	APR 05	141.45	20	158.75
15	155.85	25	136.84	10	147.53	25	167.95
20	150.95	31	136.25	15	149.85	30	164.22
25	149.15	FEB 05	135.49	20	157.90	JUL 02	161.35
30	147.68	10	134.92	25	161.52	05	162.32
DEC 05	147.45	15	134.38	30	163.70	10	165.60
10	144.99	20	133.47	MAY 05	156.91	15	172.72
15	143.82	25	133.30	10	165.18	SEP 19	177.86

FINNEY COUNTY -- CONTINUED

WELL 24S 31W 27CCB 01 SITE NUMBER 375558100430401

24-31W-27CCB. (1002) CITY OF GARDEN CITY, DRILLED, WATER-TABLE INDUSTRIAL WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION, DEPTH 295 FEET, DIAMETER 16 INCHES, MEASURING POINT, TOP WEST SIDE OF CASING, 0.80 FOOT ABOVE LSD. G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 2883. FEET

RECORDS AVAILABLE 1942 TO CURRENT YEAR.

HIGHEST WATER LEVEL 110.26 FEET BELOW LAND SURFACE DATUM NOV 09, 1953.

LOWEST WATER LEVEL 135.81 FEET BELOW LAND SURFACE DATUM SEP 06, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 04, 1979 127. ; MAR 06, 1979 133.31 ; SEP 06, 1979 135.81 .

WELL 24S 32W 03DAC 01 SITE NUMBER 375536100484901

24-32W-3DAC. (26) GARDEN CITY EXPERIMENT STATION, DRILLED, UNUSED, WATER-TABLE WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION, DEPTH 185 FEET, DIAMETER 26 INCHES, MEASURING POINT, TOP OF CASING, AT LAND SURFACE. G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 2881. FEET

RECORDS AVAILABLE 1934, 1939 TO CURRENT YEAR.

HIGHEST WATER LEVEL 63.85 FEET BELOW LAND SURFACE DATUM OCT 29, 1951.

LOWEST WATER LEVEL 105.06 FEET BELOW LAND SURFACE DATUM SEP 06, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 04, 1979 98.8 ; MAR 06, 1979 98.31 ; JUN 28, 1979 102.61 ; SEP 06, 1979 105.06 .

WELL 24S 33W 09CCD 01 SITE NUMBER 375832100571001

24-33W-9CCD. KGS - USGS. DRILLED, WATER-TABLE OBSERVATION WELL IN DEPOSITS OF PLEISTOCENE AGE. DEPTH 210 FEET, DIAMETER 5 INCHES. MEASURING POINT, TOP OF CASING, 1.5 FEET ABOVE LSD. MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 2865. FEET

RECORDS AVAILABLE 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 47.53 FEET BELOW LAND SURFACE DATUM MAR 15, 1978.

LOWEST WATER LEVEL 110.18 FEET BELOW LAND SURFACE DATUM JUL 14, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 20, 1978	64.86	JAN 10, 1979	57.56	FEB 25, 1979	54.55	JUN 25, 1979	94.17
25	62.33	15	56.93	MAR 05	54.13	30	94.17
30	62.34	20	56.50	10	54.32	JUL 02	94.13
DEC 05	61.50	25	56.20	15	54.38	05	92.37
10	60.74	31	55.85	20	54.50	10	100.40
15	65.50	FEB 05	55.51	25	54.40	15	100.40
20	60.55	10	55.25	29	54.91	20	100.40
25	59.30	13	55.09	MAY 31	80.88	25	105.07
31	59.06	15	54.97	JUN 01	72.66	SEP 19	88.42
JAN 05, 1979	58.02	20	54.72	05	68.08		

WELL 24S 33W 09CCD 02 SITE NUMBER 375832100571002

24-33W-9CCD2. KGS - USGS. DRILLED, WATER-TABLE OBSERVATION WELL IN ALLUVIUM. DEPTH 55 FEET, DIAMETER 5 INCHES. MEASURING POINT, TOP OF CASING, 1.25 FEET ABOVE LSD. MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 2865. FEET

RECORDS AVAILABLE 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 22.76 FEET BELOW LAND SURFACE DATUM NOV 15, 1978.

LOWEST WATER LEVEL 35.63 FEET BELOW LAND SURFACE DATUM SEP 19, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

FINNEY COUNTY -- CONTINUED

WELL 24S 33W 09CCD 02 SITE NUMBER 375832100571002 -- CONTINUED

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 05, 1978	33.33	DEC 15, 1978	34.17	MAR 15, 1979	34.15	MAY 20, 1979	34.54
10	33.33	20	34.15	20	34.15	25	34.59
15	33.33	25	34.17	25	34.17	31	34.63
20	33.33	31	34.23	29	34.25	JUN 05	34.69
25	33.33	JAN 05, 1979	34.00	31	34.24	10	34.73
31	33.33	10	34.02	APR 05	34.24	15	34.79
NOV 05	33.33	15	34.03	10	34.25	20	34.82
10	33.72	FEB 05	34.10	15	34.25	25	34.85
15	22.76	10	34.10	20	34.28	30	34.87
20	33.79	15	34.13	25	34.29	JUL 02	34.99
25	33.81	20	34.13	30	34.34	05	34.98
30	33.85	25	34.13	MAY 05	34.41	SEP 19	35.63
DEC 05	33.85	MAR 05	34.13	10	34.48		
10	33.87	10	34.15	15	34.52		

WELL 24S 33W 22DCA 01 SITE NUMBER 375654100553201

24-33W-22DCA. GIGOT WELL NO. 21. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 373 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE INSIDE PUMP BASE, NORTH SIDE, 1.0 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 2915. FEET

RECORDS AVAILABLE 1973 TO CURRENT YEAR.

HIGHEST WATER LEVEL 75.88 FEET BELOW LAND SURFACE DATUM FEB 22, 1973.

LOWEST WATER LEVEL 113.83 FEET BELOW LAND SURFACE DATUM SEP 19, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 02, 1979 104.18 ; MAR 08, 1979 101.98 ; JUN 25, 1979 111.82 ; SEP 19, 1979 113.83 .

WELL 24S 33W 28DAA 01 SITE NUMBER 375614100562101

24-33W-28DAA. GIGOT WELL NO. 41. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 350 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE INSIDE PUMP, NORTHEAST SIDE, 0.6 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 2886. FEET

RECORDS AVAILABLE 1973 TO CURRENT YEAR.

HIGHEST WATER LEVEL 60.37 FEET BELOW LAND SURFACE DATUM MAR 07, 1974.

LOWEST WATER LEVEL 109.34 FEET BELOW LAND SURFACE DATUM SEP 19, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 02, 1979 87.33 ; MAR 08, 1979 88.04 ; JUN 25, 1979 96.98 ; SEP 19, 1979 109.34 .

WELL 25S 32W 31DD 01 SITE NUMBER 374951100520201

25-32W-31DD. HARRY LIGHTNER. DRILLED, ARTESIAN IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 140 FEET, DIAMETER 20 INCHES. MEASURING POINT, LOWER EAST EDGE OF SLOPING PIPE, 1.12 FEET ABOVE LSD. G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 2880. FEET

RECORDS AVAILABLE 1958 TO CURRENT YEAR.

HIGHEST WATER LEVEL 61.86 FEET BELOW LAND SURFACE DATUM JAN 25, 1966.

LOWEST WATER LEVEL 96.00 FEET BELOW LAND SURFACE DATUM SEP 19, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 02, 1979 89.55 ; MAR 29, 1979 88.51 ; JUL 02, 1979 92.51 ; SEP 19, 1979 96.00 .

FINNEY COUNTY -- CONTINUED

WELL 25S 33W 05ABD 01 SITE NUMBER 375449100574301

25-33W-5ABD. GIGOT WELL NO. 56. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 420 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN NORTHEAST SIDE, 0.5 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 2920. FEET

RECORDS AVAILABLE 1973 TO CURRENT YEAR.

HIGHEST WATER LEVEL 70.16 FEET BELOW LAND SURFACE DATUM MAR 07, 1974.

LOWEST WATER LEVEL 123.11 FEET BELOW LAND SURFACE DATUM SEP 19, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 02, 1979 96.75 ; MAR 08, 1979 94.12 ; SEP 19, 1979 123.11 .

WELL 25S 33W 09ABD 01 SITE NUMBER 375357100563701

25-33W-9ABD. GIGOT WELL NO. 31. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 400 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN PUMP BASE, NORTHEAST SIDE, 0.3 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 2909. FEET

RECORDS AVAILABLE 1973 TO CURRENT YEAR.

HIGHEST WATER LEVEL 76.63 FEET BELOW LAND SURFACE DATUM MAR 07, 1974.

LOWEST WATER LEVEL 126.98 FEET BELOW LAND SURFACE DATUM SEP 19, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 02, 1979 99.7 ; MAR 08, 1979 95.9 ; JUN 25, 1979 110.08 ; SEP 19, 1979 126.98 .

WELL 25S 33W 15DAC 01 SITE NUMBER 375239100552401

25-33W-15DAC. GIGOT WELL NO. 1. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH NOT REPORTED, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN PUMP BASE, NORTHEAST SIDE, 0.26 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 2909. FEET

RECORDS AVAILABLE 1972 TO CURRENT YEAR.

HIGHEST WATER LEVEL 93.04 FEET BELOW LAND SURFACE DATUM FEB 27, 1972.

LOWEST WATER LEVEL 142.34 FEET BELOW LAND SURFACE DATUM SEP 11, 1974.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 02, 1979 119.34 ; MAR 08, 1979 116.46 ; SEP 19, 1979 121.69 .

WELL 25S 33W 17DBD 01 SITE NUMBER 375239100574301

25-33W-17DBD. GIGOT WELL NO. 51. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 473 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE INSIDE PUMP BASE, NORTHWEST SIDE, 0.5 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 2940. FEET

RECORDS AVAILABLE 1973 TO CURRENT YEAR.

HIGHEST WATER LEVEL 100.04 FEET BELOW LAND SURFACE DATUM DEC 13, 1973.

LOWEST WATER LEVEL 135.79 FEET BELOW LAND SURFACE DATUM SEP 19, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 02, 1979 116.34 ; MAR 08, 1979 114.51 ; JUN 25, 1979 120.46 ; SEP 19, 1979 135.79 .

FINNEY COUNTY -- CONTINUED

WELL 25S 33W 35DBD 01 SITE NUMBER 375002100542601

25-33W-35DBD. OLIVER W. DRUSSEL. DRILLED, WATER-TABLE OBSERVATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 340 FEET, DIAMETER 16 INCHES. MEASURING POINT TOP OF CASING, INSIDE GAGE HOUSE, AT LAND SURFACE.

ALTITUDE OF LAND SURFACE 2894. FEET

RECORDS AVAILABLE 1974 TO CURRENT YEAR.

HIGHEST WATER LEVEL 74.32 FEET BELOW LAND SURFACE DATUM MAR 01, 1974.

LOWEST WATER LEVEL 131.50 FEET BELOW LAND SURFACE DATUM JUL 01, 1974.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 02, 1979 90.16 ; FEB 13, 1979 90.16 ; MAR 29, 1979 89.71 ; JUL 02, 1979 113.98 ;

SEP 19, 1979 116.93 S.

WELL 25S 34W 06AAA 01 SITE NUMBER 375456101050301

25-34W-6AAA. DEAN GIGOT. DRILLED, WATER-TABLE OBSERVATION WELL. DEPTH 300 FEET, DIAMETER 2 INCHES. MEASURING POINT, TOP OF PIPE, 1.24 FEET ABOVE LSD.

ALTITUDE OF LAND SURFACE 2894. FEET

RECORDS AVAILABLE 1975 TO CURRENT YEAR.

HIGHEST WATER LEVEL 67.26 FEET BELOW LAND SURFACE DATUM APR 01, 1975.

LOWEST WATER LEVEL 94.62 FEET BELOW LAND SURFACE DATUM SEP 19, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 03, 1979 89.06 ; MAR 08, 1979 87.24 ; JUN 25, 1979 88.74 ; SEP 19, 1979 94.62 .

WELL 25S 34W 10ABB 01 SITE NUMBER 375404101021201

25-34W-10ABB. DEAN GIGOT. DRILLED, WATER-TABLE OBSERVATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 300 FEET, DIAMETER 2 INCHES. MEASURING POINT, TOP OF PIPE, 1.85 FEET ABOVE LSD.

ALTITUDE OF LAND SURFACE 2962. FEET

RECORDS AVAILABLE 1975 TO CURRENT YEAR.

HIGHEST WATER LEVEL 68.15 FEET BELOW LAND SURFACE DATUM APR 01, 1975.

LOWEST WATER LEVEL 82.97 FEET BELOW LAND SURFACE DATUM SEP 19, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 03, 1979 80.95 ; MAR 08, 1979 80.93 ; JUN 25, 1979 81.22 ; SEP 19, 1979 82.97 .

WELL 25S 34W 34DBD 01 SITE NUMBER 375002101020401

25-34W-34DBD. H. BROWNLEE. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH NOT REPORTED, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN WEST SIDE OF PUMP BASE, 1.0 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 2945. FEET

RECORDS AVAILABLE 1970 TO CURRENT YEAR.

HIGHEST WATER LEVEL 73.77 FEET BELOW LAND SURFACE DATUM JAN 22, 1970.

LOWEST WATER LEVEL 98.55 FEET BELOW LAND SURFACE DATUM SEP 19, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 03, 1979 90.32 ; MAR 29, 1979 89.39 ; SEP 19, 1979 98.55 .

FINNEY COUNTY -- CONTINUED

WELL 26S 33W 26ABB 01 SITE NUMBER 374553100534701

26-33W-26ABB. C. J. VOTH. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 340 FEET, DIAMETER 16 INCHES. MEASURING POINT, EDGE OF CUT-OUT ON SOUTH SIDE, 1.3 FEET ABOVE LSD.

ALTITUDE OF LAND SURFACE 2929. FEET

RECORDS AVAILABLE 1961 TO CURRENT YEAR.

HIGHEST WATER LEVEL 115.53 FEET BELOW LAND SURFACE DATUM FEB 01, 1961.

LOWEST WATER LEVEL 146.71 FEET BELOW LAND SURFACE DATUM JUL 02, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 03, 1979 141.05 ; MAR 29, 1979 140.01 ; JUL 02, 1979 146.71 ; SEP 19, 1979 145.96 .

FORD COUNTY

WELL 25S 22W 20AAA 01 SITE NUMBER 375206099451001

25-22W-20AAA. MARY ARENDS. DRILLED, WATER-TABLE CEMETERY WELL IN THE OGALLALA FORMATION. DEPTH 72 FEET, DIAMETER 5.50 INCHES. MEASURING POINT, HOLE IN PUMP BASE, UNDER PUMP HANDLE, 0.2 FOOT ABOVE LSD. MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 2437.9 FEET

RECORDS AVAILABLE 1939, 1951 TO CURRENT YEAR.

HIGHEST WATER LEVEL 61.58 FEET BELOW LAND SURFACE DATUM JUL 02, 1979.

LOWEST WATER LEVEL 67.75 FEET BELOW LAND SURFACE DATUM OCT 18, 1953.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 04, 1978 63.87 ; JAN 04, 1979 62.91 ; APR 17, 1979 61.72 ; JUL 02, 1979 61.58 .

WELL 25S 22W 27CCD 01 SITE NUMBER 375028099434701

25-22W-27CCD. JAMES NIETLING. DRILLED, WATER-TABLE OBSERVATION WELL IN THE DAKOTA SANDSTONE FORMATION. DEPTH 240 FEET. MEASURING POINT, 6-INCH HOLE, EAST SIDE OF CONCRETE, TOP OF WELL PIT, 0.6 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 2432. FEET

RECORDS AVAILABLE 1970 TO CURRENT YEAR.

HIGHEST WATER LEVEL 116.67 FEET BELOW LAND SURFACE DATUM MAR 26, 1975.

LOWEST WATER LEVEL 147.70 FEET BELOW LAND SURFACE DATUM NOV 24, 1970.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 04, 1978 129.16 ; JAN 04, 1979 125.09 ; APR 05, 1979 123.16 ; JUL 02, 1979 117.65 .

WELL 25S 23W 11CCC 01 SITE NUMBER 375307099492701

25-23W-11CCC. K.S.B.A. DRILLED, WATER-TABLE OBSERVATION WELL IN THE DAKOTA FORMATION. DEPTH 385 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 2.3 FEET ABOVE LSD.

ALTITUDE OF LAND SURFACE 2424. FEET

RECORDS AVAILABLE 1968 TO CURRENT YEAR.

HIGHEST WATER LEVEL 42.43 FEET BELOW LAND SURFACE DATUM JUN 28, 1978.

LOWEST WATER LEVEL 120.08 FEET BELOW LAND SURFACE DATUM AUG 05, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 04, 1978	70.14	JAN 05, 1979	77.36	MAR 31, 1979	75.92	JUN 25, 1979	67.84
23	72.85	10	77.55	APR 17	62.91	30	68.36
25	73.97	15	77.97	20	62.81	JUL 02	68.74
31	74.18	20	79.58	25	62.83	05	68.77
NOV 05	74.23	25	79.62	27	62.8	10	69.27
10	74.25	31	80.08	30	63.10	15	69.52
15	74.38	FEB 05	80.30	MAY 05	63.48	20	69.63
20	74.58	10	80.87	10	63.95	24	69.83
25	74.75	15	82.30	15	64.54	25	69.80
30	74.87	20	82.38	20	65.30	31	69.99
DEC 05	75.07	25	82.83	23	65.47	AUG 05	70.17
10	75.50	MAR 01	82.9	25	66.30	10	70.44
15	75.65	05	82.98	30	66.23	15	70.30
20	76.05	10	83.87	JUN 05	66.78	20	70.02
25	76.23	15	82.90	10	66.80	SEP 24	69.38
31	76.55	20	80.89	15	67.40		
JAN 04, 1979	77.35	25	79.43	20	67.76		

FORD COUNTY -- CONTINUED

WELL 25S 23W 12BBB 01 SITE NUMBER 375353099482001

25-23W-12BBB. ANTHONY INDIEK, DRILLED, ARTESIAN OBSERVATION WELL IN DAKOTA FORMATION. DEPTH 362 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, HOLE IN TOP OF CASING, 4.2 FEET ABOVE LSD. G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 2390. FEET

RECORDS AVAILABLE 1972 TO CURRENT YEAR.

HIGHEST WATER LEVEL 116.70 FEET BELOW LAND SURFACE DATUM MAY 23, 1973.

LOWEST WATER LEVEL 169.24 FEET BELOW LAND SURFACE DATUM OCT 04, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 04, 1978 169.24 ; JAN 04, 1979 155.7 ; APR 17, 1979 149.12 ; JUL 02, 1979 152.40 .

WELL 25S 23W 14ADD 01 SITE NUMBER 375241099482901

25-23W-14ADD. TOM GLEASON. DRILLED, WATER-TABLE DOMESTIC AND STOCK WELL IN DAKOTA SANDSTONE FORMATION. DEPTH 263 FEET, DIAMETER 5 INCHES. MEASURING POINT, HOLE IN BASE OF PUMP NORTH SIDE, 1.0 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 2452. FEET

RECORDS AVAILABLE 1969 TO CURRENT YEAR.

HIGHEST WATER LEVEL 156.40 FEET BELOW LAND SURFACE DATUM APR 11, 1969.

LOWEST WATER LEVEL 224.53 FEET BELOW LAND SURFACE DATUM SEP 22, 1975.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 04, 1978 216.83 ; JAN 04, 1979 209.18 ; APR 17, 1979 206.1 ; JUL 02, 1979 208.50 .

WELL 26S 21W 17DBC 01 SITE NUMBER 374632099381801

26-21W-17DBC. LARRY STRONG, DRILLED, WATER-TABLE OBSERVATION WELL IN THE DAKOTA FORMATION. DEPTH NOT REPORTED. MEASURING POINT, NORTH EDGE OF CASING, 0.6 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 2348. FEET

RECORDS AVAILABLE 1973 TO CURRENT YEAR.

HIGHEST WATER LEVEL 48.52 FEET BELOW LAND SURFACE DATUM MAY 23, 1973.

LOWEST WATER LEVEL 73.65 FEET BELOW LAND SURFACE DATUM SEP 22, 1976.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 05, 1979 60.8 ; JUN 27, 1979 58.25 .

WELL 26S 21W 23ADA 01 SITE NUMBER 374559099343801

26-21W-23ADA. (96A) HENRY HATRUP. DRIVEN, UNUSED, WATER-TABLE OBSERVATION WELL IN ALLUVIUM. DEPTH 12 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 0.6 FOOT ABOVE LSD. MEASURED BY K.S.B.A. THIS WELL REPLACED A FILLED IN IRRIGATION WELL ON JANUARY 16, 1956. DEPTH OF ORIGINAL WELL WAS 29 FEET, MP WAS 0.8 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 2262.4 FEET

RECORDS AVAILABLE 1938 - 1954, 1956 TO CURRENT YEAR.

HIGHEST WATER LEVEL 2.40 FEET BELOW LAND SURFACE DATUM MAR 27, 1973.

LOWEST WATER LEVEL 11.02 FEET BELOW LAND SURFACE DATUM SEP 05, 1939.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 05, 1979 7.86 ; APR 05, 1979 6.71 ; JUN 27, 1979 7.47 .

FORD COUNTY -- CONTINUED

WELL 26S 23W 10DAD 01 SITE NUMBER 374725099485601

26-23W-10DAD. JAMES A. MCGUIN. DRILLED, UNUSED ARTESIAN IRRIGATION WELL IN DAKOTA FORMATION. DEPTH 280 FEET, DIAMETER 16 INCHES. MEASURING POINT, TOP WEST SIDE OF 16-INCH CASING, 0.8 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 2463. FEET

RECORDS AVAILABLE 1968 TO CURRENT YEAR.

HIGHEST WATER LEVEL 123.19 FEET BELOW LAND SURFACE DATUM APR 11, 1969.

LOWEST WATER LEVEL 180.30 FEET BELOW LAND SURFACE DATUM AUG 20, 1973.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 04, 1978 178.78 ; APR 05, 1979 173.66 .

WELL 26S 24W 29DDD 01 SITE NUMBER 374442099573601

26-24W-29DDD. U. S. GEOL. SURVEY. DRILLED, UNUSED WATER-TABLE OBSERVATION WELL IN OGALLALA FORMATION. DEPTH 209 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 3.9 FEET ABOVE LSD. MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 2575. FEET

RECORDS AVAILABLE 1968 TO CURRENT YEAR.

HIGHEST WATER LEVEL 130.74 FEET BELOW LAND SURFACE DATUM NOV 26, 1973.

LOWEST WATER LEVEL 150.71 FEET BELOW LAND SURFACE DATUM JUL 02, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 04, 1978 140.8 ; JAN 05, 1979 140.1 ; APR 05, 1979 139.63 ; JUL 02, 1979 150.71 .

WELL 26S 24W 31DDA 01 SITE NUMBER 374356099584201

26-24W-31DDA. DEAN WILSON. DRILLED, WATER-TABLE OBSERVATION WELL IN OGALLALA FORMATION. DEPTH 112 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 4.3 FEET ABOVE LSD. MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 2463.3 FEET

RECORDS AVAILABLE 1968 TO CURRENT YEAR.

HIGHEST WATER LEVEL 10.62 FEET BELOW LAND SURFACE DATUM FEB 21, 1973.

LOWEST WATER LEVEL 32.76 FEET BELOW LAND SURFACE DATUM JUN 15, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 04, 1978 19.2 ; JAN 05, 1979 15.51 ; APR 05, 1979 15.4 ; JUL 02, 1979 30.36 .

WELL 26S 24W 32CBA 01 SITE NUMBER 374409099582501

26-24W-32CBA. FARMLAND INDUSTRIES, INC. DRILLED, WATER-TABLE OBSERVATION WELL IN OGALLALA FORMATION. DEPTH 136 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 1.0 FOOT ABOVE LSD. MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 2468.9 FEET

RECORDS AVAILABLE 1962, 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 4.30 FEET BELOW LAND SURFACE DATUM JUL 07, 1967.

LOWEST WATER LEVEL 48.33 FEET BELOW LAND SURFACE DATUM JUN 15, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 04, 1978 28. ; JAN 05, 1979 23.47 ; APR 05, 1979 23.19 ; JUL 02, 1979 43.52 .

FORD COUNTY -- CONTINUED

WELL 26S 24W 32DDA 01 SITE NUMBER 374356099573601

26-24W-32DDA. RICHARD GRIBBLE. DRILLED, WATER-TABLE OBSERVATION WELL IN OGALLALA FORMATION. DEPTH 104 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 3.6 FEET ABOVE LSD. MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 2463.6 FEET

RECORDS AVAILABLE 1938, 1968 TO CURRENT YEAR.

HIGHEST WATER LEVEL 18.65 FEET BELOW LAND SURFACE DATUM FEB 22, 1973.

LOWEST WATER LEVEL 47.00 FEET BELOW LAND SURFACE DATUM JUL 18, 1969.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 04, 1978 39.92 ; JAN 05, 1979 26.63 ; APR 05, 1979 25.45 ; JUL 02, 1979 31.60 .

WELL 26S 24W 33CDA 01 SITE NUMBER 374357099570301

26-24W-33CDA. WINTER INVESTMENTS INC. DRILLED, WATER-TABLE OBSERVATION WELL IN OGALLALA FORMATION. DEPTH 126 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 3.0 FEET ABOVE LSD. MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 2466.4 FEET

RECORDS AVAILABLE 1968 TO CURRENT YEAR.

HIGHEST WATER LEVEL 26.67 FEET BELOW LAND SURFACE DATUM APR 27, 1973.

LOWEST WATER LEVEL 55.74 FEET BELOW LAND SURFACE DATUM JUL 18, 1969.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 04, 1978 35.59 ; JAN 05, 1979 32.07 ; APR 05, 1979 32.03 ; JUL 02, 1979 48.09 .

WELL 26S 25W 34BBB 01 SITE NUMBER 374445100025501

26-25W-34BBB. (8) F. M. DIEHL. DRILLED, WATER-TABLE IRRIGATION WELL IN ALLUVIUM. DIAMETER 20 INCHES, DEPTH 20 FEET. MEASURING POINT, TOP OF CASING, 0.80 FOOT ABOVE LSD. G = MEASURED BY K.S.B.A. J = AFFECTED BY FLOOD WATERS.

ALTITUDE OF LAND SURFACE 2490.2 FEET

RECORDS AVAILABLE 1938 TO CURRENT YEAR.

HIGHEST WATER LEVEL 2.51 FEET BELOW LAND SURFACE DATUM JUL 02, 1942.

LOWEST WATER LEVEL 13.98 FEET BELOW LAND SURFACE DATUM JAN 03, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 03, 1979 13.98 ; APR 17, 1979 13.2 ; JUL 02, 1979 13.81 .

WELL 26S 26W 32DCC 01 SITE NUMBER 374403100110601

26-26W-32DCC. IRSIK AND DOLL. DRILLED, WATER-TABLE OBSERVATION AND STOCK WELL. DEPTH 124 FEET, DIAMETER 4 INCHES. MEASURING POINT, TOP OF CASING, 1.0 FOOT ABOVE LSD. MEASURED BY K.S.B.A.

RECORDS AVAILABLE 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 72.00 FEET BELOW LAND SURFACE DATUM APR 01, 1977.

LOWEST WATER LEVEL 78.54 FEET BELOW LAND SURFACE DATUM APR 17, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 05, 1978 77.7 ; JAN 03, 1979 78.1 ; APR 17, 1979 78.54 ; JUN 27, 1979 78.47 .

FORD COUNTY -- CONTINUED

WELL 27S 23W 24BCB 01 SITE NUMBER 374048099474001

27-23W-24BCB. DUANE REIGLE. DRILLED, WATER-TABLE IRRIGATION WELL IN THE DAKOTA FORMATION. DEPTH 220 FEET, DIAMETER 16 INCHES. MEASURING POINT, BACK BASE OF PUMP, NORTHWEST SIDE, 0.4 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 2395. FEET

RECORDS AVAILABLE 1974 TO CURRENT YEAR.

HIGHEST WATER LEVEL 1.40 FEET BELOW LAND SURFACE DATUM MAR 21, 1974.

LOWEST WATER LEVEL 89.88 FEET BELOW LAND SURFACE DATUM JUN 27, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 05, 1979 21.90 ; APR 05, 1979 15.58 ; JUN 27, 1979 89.88 .

WELL 27S 24W 03BBD 01 SITE NUMBER 374337099561401

27-24W-3BBD. STATE OF KANSAS. DRILLED, WATER-TABLE OBSERVATION WELL IN OGALLALA FORMATION. DEPTH 95 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF CASING, 2.3 FEET ABOVE LSD. MEASURED BY K.S.G.A.

ALTITUDE OF LAND SURFACE 2455.2 FEET

RECORDS AVAILABLE 1968 TO CURRENT YEAR.

HIGHEST WATER LEVEL 17.25 FEET BELOW LAND SURFACE DATUM APR 27, 1973.

LOWEST WATER LEVEL 43.02 FEET BELOW LAND SURFACE DATUM AUG 20, 1973.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 04, 1978 32.40 ; JAN 05, 1979 29.38 ; APR 05, 1979 26.88 ; JUL 02, 1979 27.48 .

WELL 27S 24W 03CDD 01 SITE NUMBER 374258099555701

27-24W-3CDD. MARILYN RING. DRILLED, WATER-TABLE OBSERVATION WELL IN OGALLALA FORMATION. DEPTH 96 FEET, DIAMETER 4 INCHES. MEASURING POINT, TOP OF CASING, 0.4 FOOT ABOVE LSD.

RECORDS AVAILABLE 1973 TO CURRENT YEAR.

HIGHEST WATER LEVEL 6.06 FEET BELOW LAND SURFACE DATUM APR 25, 1975.

LOWEST WATER LEVEL 43.95 FEET BELOW LAND SURFACE DATUM JUL 25, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 05, 1978	14.98	JAN 05, 1979	11.81	APR 01, 1979	12.22	JUN 20, 1979	23.94
10	14.97	10	12.23	05	12.23	25	25.50
15	15.10	15	11.42	10	12.30	30	30.17
20	16.11	20	11.10	15	14.20	JUL 02	32.01
25	16.98	25	11.14	20	13.56	05	35.02
31	17.07	31	11.03	25	16.66	10	34.15
NOV 05	15.63	FEB 05	10.65	27	18.05	15	39.77
10	16.57	10	11.13	30	16.60	20	22.70
15	13.66	15	10.89	MAY 05	15.55	24	21.77
20	13.08	20	10.64	10	17.80	25	20.26
25	12.95	25	10.93	15	21.35	31	20.52
30	12.60	MAR 01	12.07	20	17.02	AUG 05	27.21
DEC 05	12.72	05	12.72	23	17.69	10	39.32
10	12.66	10	12.53	25	17.55	15	32.57
15	12.45	15	13.22	31	17.68	20	36.83
20	12.43	20	12.30	JUN 05	19.38	SEP 24	35.27
25	12.32	25	11.32	10	17.34		
31	12.24	30	11.77	15	20.38		

FORD COUNTY -- CONTINUED

WELL 27S 24W 04BBC 01 SITE NUMBER 374337099572801

27-24W-4BBC. SAMUEL M. CAUGHRON. DRILLED, WATER-TABLE OBSERVATION WELL IN OGALLALA FORMATION. DEPTH 119 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 3.8 FEET ABOVE LSD. MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 2453.0 FEET

RECORDS AVAILABLE 1968 TO CURRENT YEAR.

HIGHEST WATER LEVEL 11.24 FEET BELOW LAND SURFACE DATUM DEC 13, 1974.

LOWEST WATER LEVEL 39.30 FEET BELOW LAND SURFACE DATUM JUN 15, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 04, 1978 19.65 ; JAN 05, 1979 15.37 ; APR 05, 1979 15.85 ; JUL 02, 1979 34.43 .

WELL 27S 24W 09AAD 01 SITE NUMBER 374245099563001

27-24W-9AAD. RENICK + DOLL CATTLE COMPANY. DRILLED, WATER-TABLE OBSERVATION WELL IN OGALLALA FORMATION. DEPTH 160 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF CASING, 3.1 FEET ABOVE LSD.

RECORDS AVAILABLE 1972 TO CURRENT YEAR.

HIGHEST WATER LEVEL 14.40 FEET BELOW LAND SURFACE DATUM APR 27, 1973.

LOWEST WATER LEVEL 51.07 FEET BELOW LAND SURFACE DATUM JUL 22, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23, 1978	24.6	MAR 01, 1979	18.98	MAY 23, 1979	26.77	SEP 24, 1979	44.53
NOV 30	20.77	APR 05	19.95	JUL 02	35.39		
JAN 05, 1979	20.11	27	22.92	24	32.85		

WELL 27S 24W 16BDA 01 SITE NUMBER 374146099570301

27-24W-16BDA. WAYNE R. BARNES. DRILLED, WATER-TABLE OBSERVATION WELL IN OGALLALA FORMATION. DEPTH 170 FEET, DIAMETER 1-1/4 INCHES. MEASURING POINT, TOP OF PIPE, 3.4 FEET ABOVE LSD. DISCONTINUED MARCH 1979.

RECORDS AVAILABLE 1973 TO CURRENT YEAR.

HIGHEST WATER LEVEL 70.93 FEET BELOW LAND SURFACE DATUM MAR 01, 1979.

LOWEST WATER LEVEL 126.16 FEET BELOW LAND SURFACE DATUM JUL 22, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

NOV 30, 1978 72. ; MAR 01, 1979 70.93 .

WELL 28S 24W 08DCC 01 SITE NUMBER 373652099575901

28-24W-8DCC. T. W. BELL. DRILLED, WATER-TABLE IRRIGATION WELL. DEPTH NOT REPORTED. MEASURING POINT, 1.25-INCH PLUG IN SOUTHWEST CORNER OF PUMP BASE, 0.6 FOOT ABOVE LSD. MEASURED BY K.S.B.A.

RECORDS AVAILABLE 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 132.16 FEET BELOW LAND SURFACE DATUM JUN 15, 1977.

LOWEST WATER LEVEL 136.99 FEET BELOW LAND SURFACE DATUM SEP 25, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 05, 1979 134.75 ; APR 05, 1979 133.79 .

FORD COUNTY -- CONTINUED

WELL 28S 25W 06ABB 01 SITE NUMBER 373830100053901

28-25W-6ABB. CHAS. W. SWITZER. DRILLED, WATER-TABLE IRRIGATION WELL. DEPTH 189 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE SOUTHWEST CORNER OF PUMP BASE, 0.2 FOOT ABOVE LSD.

RECORDS AVAILABLE 1972 TO CURRENT YEAR.

HIGHEST WATER LEVEL 138.31 FEET BELOW LAND SURFACE DATUM MAR 24, 1972.

LOWEST WATER LEVEL 147.63 FEET BELOW LAND SURFACE DATUM OCT 04, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 04, 1978 147.63 ; JAN 05, 1979 143.79 ; APR 05, 1979 143.26 ; JUN 27, 1979 142.94 .

WELL 28S 26W 13BDD 01 SITE NUMBER 373638100065401

28-26W-13BDD. CARL ZINK. DRILLED, WATER-TABLE IRRIGATION WELL. DEPTH 225 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN NORTHWEST CORNER OF PUMP BASE, 0.5 FOOT ABOVE LSD. MEASURED BY K.S.B.A. REPLACED BY 28S 26W 13CAA 01, OCTOBER 1978.

RECORDS AVAILABLE 1975, 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 127.26 FEET BELOW LAND SURFACE DATUM JUN 11, 1975.

LOWEST WATER LEVEL 131.40 FEET BELOW LAND SURFACE DATUM SEP 22, 1977.

WATER LEVELS WERE NOT MEASURED IN THIS WELL BETWEEN 10/01/1978 AND 09/30/1979

WELL 28S 26W 13CAA 01 SITE NUMBER 373632100065401

28-26W-13CAA. ALBERT GREENWOOD. DRILLED, WATER-TABLE OBSERVATION WELL. DEPTH 218 FEET, DIAMETER 2 INCHES. MEASURING POINT, TOP OF CASING, 1.6 FEET ABOVE LSD. REPLACES 28S 26W 13BDD 01. MEASURED BY K.S.B.A.

RECORDS AVAILABLE 1978 TO CURRENT YEAR.

HIGHEST WATER LEVEL 132.71 FEET BELOW LAND SURFACE DATUM APR 05, 1979.

LOWEST WATER LEVEL 140. FEET BELOW LAND SURFACE DATUM AUG 30, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 04, 1978 134.98 ; JAN 05, 1979 133.09 ; APR 05, 1979 132.71 ; JUN 27, 1979 137.83 .

WELL 29S 21W 05BBB 01 SITE NUMBER 373309099384901

29-21W-5BBB. E. R. AND M. L. ESTES. DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FORMATION. DEPTH 131 FEET, DIAMETER 16 INCHES. MEASURING POINT, FLAP IN NORTH SIDE OF PUMP BASE, 0.5 FOOT ABOVE LSD. G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 2418. FEET

RECORDS AVAILABLE 1956, 1959 TO CURRENT YEAR.

HIGHEST WATER LEVEL 79.50 FEET BELOW LAND SURFACE DATUM MAY 05, 1956.

LOWEST WATER LEVEL 100.87 FEET BELOW LAND SURFACE DATUM MAR 29, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 28, 1978 97.55 ; APR 06, 1979 97.04 ; JUN 26, 1979 96.87 .

FORD COUNTY -- CONTINUED

WELL 29S 26W 29ABB 01 SITE NUMBER 372957100110901

29-26W-29ABB, D. J. DEAVER, DRILLED, WATER-TABLE IRRIGATION WELL, DEPTH 170 FEET, DIAMETER 16 INCHES, MEASURING POINT, HOLE IN NORTH SIDE OF PUMP BASE, AT LAND SURFACE.

ALTITUDE OF LAND SURFACE 2550. FEET

RECORDS AVAILABLE 1971 TO CURRENT YEAR.

HIGHEST WATER LEVEL 60.75 FEET BELOW LAND SURFACE DATUM JUN 11, 1975.

LOWEST WATER LEVEL 81.62 FEET BELOW LAND SURFACE DATUM JUN 14, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

MAR 06, 1979 77.07 ; JUN 14, 1979 81.62 .

GRANT COUNTY

WELL 27S 35W 17ADD 01 SITE NUMBER 374203101095101

27-35W-17ADD, HERMAN E. MEYER, DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION, DEPTH 410 FEET, DIAMETER 16 INCHES, MEASURING POINT, TOP HOLE IN SOUTHEAST SIDE STEEL PUMP BASE, 2.00 FEET ABOVE LSD. G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 3086. FEET

RECORDS AVAILABLE 1954, 1958 - 1960, 1963 TO CURRENT YEAR.

HIGHEST WATER LEVEL 179.25 FEET BELOW LAND SURFACE DATUM NOV 10, 1958.

LOWEST WATER LEVEL 224.38 FEET BELOW LAND SURFACE DATUM JUN 13, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

FEB 02, 1979 216.78 ; MAR 27, 1979 218.03 ; JUN 13, 1979 224.38 .

WELL 27S 37W 04ABB 01 SITE NUMBER 374406101221501

27-37W-4ABB, C. L. JURY, JR, DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND USALLALA FORMATION, DEPTH 370 FEET, DIAMETER 16 INCHES, MEASURING POINT, HOLE IN SOUTHWEST SIDE OF PUMP BASE, 2.50 FEET ABOVE LSD.

ALTITUDE OF LAND SURFACE 3080. FEET

RECORDS AVAILABLE 1958 - 1961, 1963 TO CURRENT YEAR.

HIGHEST WATER LEVEL 74.16 FEET BELOW LAND SURFACE DATUM MAR 28, 1960.

LOWEST WATER LEVEL 146.03 FEET BELOW LAND SURFACE DATUM FEB 01, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

FEB 01, 1979 146.03 ; MAR 27, 1979 150.49 R.

GRANT COUNTY -- CONTINUED

WELL 27S 38W 15BBB 01 SITE NUMBER 374221101281501

27-38W-15BBB. MRS. CHARLES ANDES. DRILLED, WATER-TABLE IRRIGATION WELL IN DEPOSITS OF PLEISTOCENE AGE, DAKOTA SANDSTONE, AND CHEYENNE SANDSTONE. DEPTH 479 FEET, DIAMETER 16 INCHES. MEASURING POINT, OUTSIDE EDGE OF BOLT HOLE AT BASE OF PUMP, 0.5 FOOT ABOVE LSD. MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 3148. FEET

RECORDS AVAILABLE 1958 TO CURRENT YEAR.

HIGHEST WATER LEVEL 97.15 FEET BELOW LAND SURFACE DATUM JAN 15, 1958.

LOWEST WATER LEVEL 180.33 FEET BELOW LAND SURFACE DATUM JUN 19, 1975.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

FEB 01, 1979 171.2 ; MAR 27, 1979 165.57 ; JUN 13, 1979 166.41 ; SEP 13, 1979 176.04 .

WELL 27S 38W 23CB 01 SITE NUMBER 374100101270501

27-38W-23CB. L. F. HOMNER. DRILLED, UNUSED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 235 FEET, DIAMETER 16 INCHES. MEASURING POINT, TOP EAST SIDE OF CASING, 0.8 FOOT ABOVE LSD. MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 3105. FEET

RECORDS AVAILABLE 1943, 1955, 1958 TO CURRENT YEAR.

HIGHEST WATER LEVEL 41.25 FEET BELOW LAND SURFACE DATUM MAR 09, 1943.

LOWEST WATER LEVEL 168.40 FEET BELOW LAND SURFACE DATUM JUN 23, 1970.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

FEB 01, 1979 151.42 ; MAR 14, 1979 156.57 ; MAR 27, 1979 153.39 ; JUN 13, 1979 156.71 ;
SEP 13, 1979 157.16 S.

WELL 27S 38W 32BCC 01 SITE NUMBER 373924101302501

27-38W-32BCC. G. M. COFFEY. DRILLED, UNUSED, WATER-TABLE OBSERVATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 258 FEET, DIAMETER 16 INCHES. MEASURING POINT, TOP OF SOUTH SIDE OF CASING, 2.0 FEET ABOVE LSD. MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 3131. FEET

RECORDS AVAILABLE 1940, 1958 TO CURRENT YEAR.

HIGHEST WATER LEVEL 49.66 FEET BELOW LAND SURFACE DATUM NOV 29, 1940.

LOWEST WATER LEVEL 159.95 FEET BELOW LAND SURFACE DATUM SEP 13, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 05, 1978	157.10	JAN 10, 1979	156.31	MAR 27, 1979	154.71	JUN 13, 1979	155.47
10	157.05	15	156.30	31	155.03	15	155.35
15	157.15	20	156.30	APR 05	154.99	20	155.05
20	157.18	25	156.30	10	154.62	25	154.52
NOV 10	157.62	31	156.30	15	155.10	30	154.43
15	157.71	FEB 01	154.89	20	155.30	JUL 05	155.15
20	157.71	05	154.95	25	155.98	10	155.28
25	157.34	10	155.17	30	156.00	15	155.39
30	157.13	15	155.71	MAY 05	157.19	20	155.97
DEC 05	157.05	20	155.28	10	156.42	25	156.18
10	156.77	25	155.43	15	156.53	31	156.39
15	156.85	MAR 05	155.77	20	156.35	AUG 05	156.54
20	156.98	10	155.86	25	156.08	SEP 13	159.95
25	156.84	15	155.79	31	156.08		
31	156.53	20	155.93	JUN 05	155.67		
JAN 05, 1979	156.35	25	155.71	10	155.70		

GRANT COUNTY -- CONTINUED

WELL 28S 36W 21CDD 01 SITE NUMBER 373530101154601

28-36W-21CDD. J. S. CONGDON. DRILLED, WATER-TABLE DOMESTIC WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 325 FEET, DIAMETER 6 INCHES. MEASURING POINT, HOLE IN WEST SIDE OF PLATE, 0.7 FOOT ABOVE LSD. MEASURING POINT CHANGED TO 5.95 FEET BELOW LSD, JUNE 17, 1975.

ALTITUDE OF LAND SURFACE 3066. FEET

RECORDS AVAILABLE 1966 - 1968, 1970 TO CURRENT YEAR.

HIGHEST WATER LEVEL 193.85 FEET BELOW LAND SURFACE DATUM FEB 18, 1966.

LOWEST WATER LEVEL 256.86 FEET BELOW LAND SURFACE DATUM SEP 12, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

FEB 02, 1979 253.95 ; MAR 27, 1979 254.44 ; JUN 13, 1979 256.81 .

WELL 28S 37W 02BBB 03 SITE NUMBER 373853101203603

28-37W-2BBB3. H. R. BECHTELHEIMER. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS, OGALLALA FORMATION AND UNDIFFERENTIATED MESOZOIC DEPOSITS. DEPTH 618 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE INSIDE WEST SIDE OF PUMP BASE, 0.3 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 3087. FEET

RECORDS AVAILABLE 1974 TO CURRENT YEAR.

HIGHEST WATER LEVEL 160.15 FEET BELOW LAND SURFACE DATUM JAN 13, 1975.

LOWEST WATER LEVEL 243.55 FEET BELOW LAND SURFACE DATUM MAR 11, 1976.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

FEB 01, 1979 218.91 ; MAR 27, 1979 218.85 .

WELL 28S 38W 07BBB 01 SITE NUMBER 373758101313001

28-38W-7BBB. MRS. DELIA PINEGAR. DRILLED, WATER-TABLE IRRIGATION WELL IN DEPOSITS OF PLIOCENE AND PLEISTOCENE AGE. DIAMETER 16 INCHES, DEPTH 284 FEET. MEASURING POINT, LOWER EDGE OF CUTOUT IN NORTH SIDE OF PUMP BASE, 0.70 FOOT ABOVE LSD. G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 3134. FEET

RECORDS AVAILABLE 1958 TO CURRENT YEAR.

HIGHEST WATER LEVEL 82.36 FEET BELOW LAND SURFACE DATUM MAR 21, 1960.

LOWEST WATER LEVEL 224.31 FEET BELOW LAND SURFACE DATUM SEP 13, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

FEB 01, 1979 210.11 ; MAR 27, 1979 203.92 ; JUN 13, 1979 210.23 ; SEP 13, 1979 224.31 .

WELL 28S 38W 12DDD 01 SITE NUMBER 373716101250601

28-38W-12DDD. U.S.G.S. DRILLED, WATER-TABLE OBSERVATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 367 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 3.70 FEET ABOVE LSD. MEASURING POINT CHANGED TO 1.5 FEET ABOVE LSD, SEPTEMBER 21, 1964. G = MEASURED BY K.S.B.A, MP CHANGED TO 0.97 FOOT BELOW LSD, SEPTEMBER 11, 1974.

ALTITUDE OF LAND SURFACE 3080. FEET

RECORDS AVAILABLE 1963 TO CURRENT YEAR.

HIGHEST WATER LEVEL 72.06 FEET BELOW LAND SURFACE DATUM MAR 02, 1966.

LOWEST WATER LEVEL 209.50 FEET BELOW LAND SURFACE DATUM SEP 09, 1970.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

MAR 27, 1979 144.09 ; SEP 13, 1979 177.56 .

GRANT COUNTY -- CONTINUED

WELL 28S 38W 17AAA 01 SITE NUMBER 373707101292701

28-38W-17AAA. U. S. GEOL. SURVEY. DRILLED, WATER-TABLE OBSERVATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 390 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 4.0 FEET ABOVE LSD. G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 3112. FEET

RECORDS AVAILABLE 1963 TO CURRENT YEAR.

HIGHEST WATER LEVEL 100.41 FEET BELOW LAND SURFACE DATUM FEB 21, 1966.

LOWEST WATER LEVEL 211.44 FEET BELOW LAND SURFACE DATUM SEP 13, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

FEB 01, 1979 199.76 ; MAR 27, 1979 193.84 ; JUN 13, 1979 203.21 ; SEP 13, 1979 211.44 .

WELL 28S 38W 33BD 03 SITE NUMBER 373414101285803

28-38W-33BD3 U.S.G.S. DRILLED, WATER-TABLE OBSERVATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 400 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 0.30 FOOT ABOVE LSD. G = MEASURED BY K.S.B.A. MP BROKEN OFF 3 FEET, JANUARY 22, 1970.

ALTITUDE OF LAND SURFACE 3128. FEET

RECORDS AVAILABLE 1963 TO CURRENT YEAR.

HIGHEST WATER LEVEL 87.90 FEET BELOW LAND SURFACE DATUM MAR 03, 1964.

LOWEST WATER LEVEL 164.66 FEET BELOW LAND SURFACE DATUM JUN 13, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

FEB 01, 1979 159.41 ; MAR 27, 1979 163.03 G; JUN 13, 1979 164.66 ; SEP 13, 1979 168.19 G.

WELL 29S 35W 06BAA 01 SITE NUMBER 373339101112801

29-35W-6BAA. P. M. HAMPTON. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 376 FEET, DIAMETER 16 INCHES. MEASURING POINT, LOWER EDGE OF CUT-OUT IN PUMP BASE, 1.0 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 3054. FEET

RECORDS AVAILABLE 1959 - 1960, 1963 TO CURRENT YEAR.

HIGHEST WATER LEVEL 207.70 FEET BELOW LAND SURFACE DATUM MAR 16, 1973.

LOWEST WATER LEVEL 232.60 FEET BELOW LAND SURFACE DATUM JAN 20, 1971.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

FEB 01, 1979 215.1 ; JUN 13, 1979 219.71

WELL 29S 38W 35CCD 01 SITE NUMBER 372032101265901

29-38W-35CCD. RAY R. KEPLEY. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 271 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN SOUTH SIDE OF PUMP, 1.00 FOOT ABOVE LSD. G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 3124. FEET

RECORDS AVAILABLE 1958 - 1960, 1963 TO CURRENT YEAR.

HIGHEST WATER LEVEL 100.24 FEET BELOW LAND SURFACE DATUM APR 01, 1960.

LOWEST WATER LEVEL 159.01 FEET BELOW LAND SURFACE DATUM SEP 15, 1976.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

FEB 01, 1979 153.95 ; MAR 27, 1979 152.37 ; JUN 13, 1979 152.49 ; SEP 13, 1979 172.41 G.

GRANT COUNTY -- CONTINUED

WELL 30S 36W 01BBB 01 SITE NUMBER 372826101125501

30-36W-1BBB. U.S.G.S. DRILLED, WATER-TABLE OBSERVATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 400 FEET, DIAMETER 1.25 FEET. MEASURING POINT, TOP OF PIPE, 3.00 FEET ABOVE LSD. PRIOR TO JANUARY 1974, MP WAS 3.6 FEET ABOVE LSD. G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 2973. FEET

RECORDS AVAILABLE 1963 TO CURRENT YEAR.

HIGHEST WATER LEVEL 120.64 FEET BELOW LAND SURFACE DATUM MAR 02, 1966.

LOWEST WATER LEVEL 208.05 FEET BELOW LAND SURFACE DATUM JUN 16, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

FEB 01, 1979 186.85 J MAR 27, 1979 184.49 J JUN 13, 1979 194.42 J SEP 13, 1979 207.83 .

WELL 30S 36W 32BBC 01 SITE NUMBER 372357101171501

30-36W-32BBC. MRS. FANNIE BROLLIER. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 370 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN PUMP BASE, 1.3 FEET ABOVE LSD. G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 3064. FEET

RECORDS AVAILABLE 1960, 1963 - 1966, 1968 TO CURRENT YEAR.

HIGHEST WATER LEVEL 112.89 FEET BELOW LAND SURFACE DATUM MAR 21, 1960.

LOWEST WATER LEVEL 161.76 FEET BELOW LAND SURFACE DATUM SEP 09, 1976.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

FEB 01, 1979 146.86 J MAR 27, 1979 148.96 J JUN 13, 1979 148.26 J SEP 13, 1979 159.66 .

WELL 30S 37W 03DBA 01 SITE NUMBER 372759101210001

30-37W-3DBA. EARL STEEN. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 55 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN PUMP BASE, 2.00 FEET ABOVE LSD. G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 3108. FEET

RECORDS AVAILABLE 1959 - 1960, 1962 - 1965, 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 149.14 FEET BELOW LAND SURFACE DATUM MAR 31, 1960.

LOWEST WATER LEVEL 263.20 FEET BELOW LAND SURFACE DATUM JAN 20, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

FEB 01, 1979 257.86 J MAR 27, 1979 258.97 WJ JUN 13, 1979 251.87 J SEP 13, 1979 259.93 .

WELL 30S 37W 20CBC 01 SITE NUMBER 372515101235101

30-37W-20CBC. J. H. LEWIS. DRILLED, WATER-TABLE IRRIGATION WELL IN DEPOSITS OF PLEISTOCENE AGE. DEPTH 335 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN SOUTH SIDE OF PUMP BASE, 0.65 FOOT ABOVE LSD. G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 3125. FEET

RECORDS AVAILABLE 1941 - 1942, 1952 TO CURRENT YEAR.

HIGHEST WATER LEVEL 114.29 FEET BELOW LAND SURFACE DATUM APR 16, 1942.

LOWEST WATER LEVEL 203.10 FEET BELOW LAND SURFACE DATUM JUN 16, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

FEB 01, 1979 193.48 J MAR 27, 1979 193.03 J JUN 13, 1979 193.74 J SEP 13, 1979 196.06 .

GRAY COUNTY

WELL 24S 28W 36ACA 01 SITE NUMBER 375520100202701

24-28W-36ACA. ART SCHARTZ. DRILLED, ARTESIAN IRRIGATION WELL IN OGALLALA FORMATION. DIAMETER 16 INCHES, DEPTH 135 FEET. MEASURING POINT, PUMP BASE, 0.9 FOOT ABOVE LSD. G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 2720. FEET

RECORDS AVAILABLE 1956, 1959 TO CURRENT YEAR.

HIGHEST WATER LEVEL 82.24 FEET BELOW LAND SURFACE DATUM JAN 20, 1965.

LOWEST WATER LEVEL 95.71 FEET BELOW LAND SURFACE DATUM SEP 06, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

SEP 06, 1979 95.71 .

WELL 24S 30W 15CCC 01 SITE NUMBER 375732100363001

24-30W-15CCC. WALTER NICHOLSON. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 240 FEET, DIAMETER 18 INCHES. MEASURING POINT, 1.0 FOOT ABOVE LSD. G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 2846. FEET

RECORDS AVAILABLE 1965 TO CURRENT YEAR.

HIGHEST WATER LEVEL 117.00 FEET BELOW LAND SURFACE DATUM JAN 10, 1966.

LOWEST WATER LEVEL 146.85 FEET BELOW LAND SURFACE DATUM JAN 18, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 08, 1979 130.32 ; MAR 06, 1979 135.47 ; MAR 12, 1979 129.3 ; JUN 28, 1979 143.19 ;

SEP 06, 1979 131.71 .

WELL 26S 29W 35CCC 01 SITE NUMBER 374417100280401

26-29W-35CCC. FLOYD FRACK. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 218 FEET. MEASURING POINT, HOLE IN SOUTH SIDE OF PUMP BASE, 0.1 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 2742. FEET

RECORDS AVAILABLE 1965 TO CURRENT YEAR.

HIGHEST WATER LEVEL 65.80 FEET BELOW LAND SURFACE DATUM JAN 20, 1969.

LOWEST WATER LEVEL 87.09 FEET BELOW LAND SURFACE DATUM SEP 05, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 09, 1979 83.9 ; MAR 05, 1979 83.52 ; JUN 14, 1979 85.24 ; SEP 05, 1979 87.09 .

WELL 27S 27W 25CCD 01 SITE NUMBER 373947100134201

27-27W-25CCD. ARTHUR SLOCUM. DRILLED WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 200 FEET, DIAMETER 16 INCHES. MEASURING POINT, LOWER EDGE OF HOLE ON SOUTHEAST SIDE OF PUMP, 0.7 FOOT ABOVE LSD. G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 2732. FEET

RECORDS AVAILABLE 1937, 1940, 1965 TO CURRENT YEAR.

HIGHEST WATER LEVEL 163.85 FEET BELOW LAND SURFACE DATUM JAN 17, 1966.

LOWEST WATER LEVEL 176.15 FEET BELOW LAND SURFACE DATUM SEP 05, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 09, 1979 174.7 ; MAR 05, 1979 174.61 ; JUN 14, 1979 173.88 ; SEP 05, 1979 176.15 .

GRAY COUNTY -- CONTINUED

WELL 27S 30W 23BB 01 SITE NUMBER 374126100343401

27-30W-23BB. HOSKINSON BROS. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 135 FEET, DIAMETER 16 INCHES. MEASURING POINT, CUT-OUT IN NORTH SIDE OF PUMP BASE, 1.0 FOOT ABOVE LSD. G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 2772. FEET

RECORDS AVAILABLE 1940, 1964 TO CURRENT YEAR.

HIGHEST WATER LEVEL 62.50 FEET BELOW LAND SURFACE DATUM DEC 10, 1964.

LOWEST WATER LEVEL 94.16 FEET BELOW LAND SURFACE DATUM JUN 14, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 09, 1979 86.1 ; MAR 05, 1979 90.41 R; JUN 14, 1979 94.16 .

WELL 28S 30W 17BBA 01 SITE NUMBER 373709100374701

28-30-17BBA. EARL A. NELSON. DRILLED, ARTESIAN IRRIGATION WELL IN OGALLALA FORMATION. DIAMETER 16 INCHES, DEPTH 300 FEET. MEASURING POINT, UPPER EDGE OF HOLE IN SOUTH SIDE OF PUMP, 0.8 FOOT ABOVE LSD. G = MEASURED BY K.S.B.A. MP CHANGED TO 0.1 FOOT ABOVE LSD, JANUARY 1974.

ALTITUDE OF LAND SURFACE 2817. FEET

RECORDS AVAILABLE 1959 TO CURRENT YEAR.

HIGHEST WATER LEVEL 107.05 FEET BELOW LAND SURFACE DATUM JAN 06, 1959.

LOWEST WATER LEVEL 158.44 FEET BELOW LAND SURFACE DATUM JUN 14, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 09, 1979 146.33 ; MAR 05, 1979 149.71 ; JUN 14, 1979 158.44 .

WELL 28S 30W 24BAB 01 SITE NUMBER 373614100331601

28-30W-24BAB. ALLEN ISAAC. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 242 FEET, DIAMETER 16 INCHES. MEASURING POINT, TOP EDGE OF HOLE IN SOUTH SIDE OF PUMP HEAD, 0.80 FOOT ABOVE LSD. G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 2804. FEET

RECORDS AVAILABLE 1961 TO CURRENT YEAR.

HIGHEST WATER LEVEL 115.37 FEET BELOW LAND SURFACE DATUM APR 02, 1962.

LOWEST WATER LEVEL 159.52 FEET BELOW LAND SURFACE DATUM JAN 18, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 09, 1979 151.66 ; MAR 05, 1979 151.3 ; JUN 14, 1979 155.66 .

WELL 29S 28W 28CDC 01 SITE NUMBER 372922100232701

29-28W-28CDC. DELBERT MCCUNE. DRILLED, ARTESIAN IRRIGATION WELL IN OGALLALA FORMATION. DIAMETER 16 INCHES, DEPTH 204 FEET. MEASURING POINT, HOLE IN SOUTHWEST SIDE OF PUMP BASE, 1.00 FOOT ABOVE LSD. G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 2688. FEET

RECORDS AVAILABLE 1959 TO CURRENT YEAR.

HIGHEST WATER LEVEL 87.60 FEET BELOW LAND SURFACE DATUM APR 18, 1960.

LOWEST WATER LEVEL 109.57 FEET BELOW LAND SURFACE DATUM MAR 05, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 09, 1979 108.58 ; MAR 05, 1979 109.57 ; JUN 14, 1979 99.07 .

GRAY COUNTY -- CONTINUED

WELL 29S 29W 10BBB 01 SITE NUMBER 373247100291101

29-29W-10BBB. WALTER SCHMIDT. DRILLED, ARTESIAN IRRIGATION WELL IN OGALLALA FORMATION. DEPTH 151 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN WEST SIDE OF PUMP BASE, 1.5 FEET ABOVE LSD. G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 2744. FEET

RECORDS AVAILABLE 1959 TO CURRENT YEAR.

HIGHEST WATER LEVEL 85.38 FEET BELOW LAND SURFACE DATUM JAN 06, 1960.

LOWEST WATER LEVEL 112.4 FEET BELOW LAND SURFACE DATUM SEP 06, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 09, 1979 110.11 ; MAR 05, 1979 109.46 ; JUN 14, 1979 108.79 .

GREELEY COUNTY

WELL 16S 39W 02BDC 01 SITE NUMBER 384139101354901

16-39W-2BDC. F. J. HERL + SONS. (REPLACEMENT FOR 16-39W-3DAA.) DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FORMATION. DEPTH 190 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN NORTH SIDE OF PUMP, 1.5 FEET ABOVE LSD. MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 3520. FEET

RECORDS AVAILABLE 1970 TO CURRENT YEAR.

HIGHEST WATER LEVEL 100.86 FEET BELOW LAND SURFACE DATUM JAN 24, 1970.

LOWEST WATER LEVEL 135.31 FEET BELOW LAND SURFACE DATUM JUN 13, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

MAR 14, 1979 126.78 ; JUN 13, 1979 135.31 ; SEP 10, 1979 131.15 .

WELL 16S 39W 22DCB 01 SITE NUMBER 383841101363801

16-39W-22DCB. ANDREW BERNING. DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FORMATION. DEPTH 163 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN NORTHEAST SIDE OF PUMP BASE, 1.0 FOOT ABOVE LSD. G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 3529. FEET

RECORDS AVAILABLE 1964 TO CURRENT YEAR.

HIGHEST WATER LEVEL 87.22 FEET BELOW LAND SURFACE DATUM JAN 28, 1965.

LOWEST WATER LEVEL 129.64 FEET BELOW LAND SURFACE DATUM JUN 19, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

MAR 14, 1979 123.91 ; JUN 19, 1979 129.64 ; SEP 10, 1979 128.06 .

WELL 16S 40W 18DBA 01 SITE NUMBER 383947101463701

16-40W-18DBA. GORDON CAVENEE. DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FORMATION. DEPTH 210 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN PUMP BASE, 0.5 FOOT ABOVE LSD. G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 3691. FEET

RECORDS AVAILABLE 1965 TO CURRENT YEAR.

HIGHEST WATER LEVEL 126.70 FEET BELOW LAND SURFACE DATUM JAN 18, 1966.

LOWEST WATER LEVEL 160.8 FEET BELOW LAND SURFACE DATUM JAN 31, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 31, 1979 160.8 ; MAR 14, 1979 158.23 ; SEP 10, 1979 159.93 .

GREELEY COUNTY -- CONTINUED

WELL 16S 40W 26ADA 01 SITE NUMBER 383815101415101

16-40W-26ADA. YOUNG CATTLE COMPANY. DRILLED, WATER-TABLE IRRIGATION WELL IN THE OGALLALA FORMATION. DEPTH NOT REPORTED. MEASURING POINT, HOLE IN SOUTH SIDE OF PUMP BASE, 0.4 FOOT ABOVE LSD. MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 3602. FEET

RECORDS AVAILABLE 1976 TO CURRENT YEAR.

HIGHEST WATER LEVEL 108.48 FEET BELOW LAND SURFACE DATUM JAN 18, 1977.

LOWEST WATER LEVEL 111.6 FEET BELOW LAND SURFACE DATUM JAN 31, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 31, 1979 111.6 .

WELL 16S 41W 20BAD 01 SITE NUMBER 383915101522901

16-41W-20BAD. JACK BARR. (PREVIOUSLY PUBLISHED AS 16-41W-20ABC) DRILLED, WATER-TABLE IRRIGATION WELL IN THE OGALLALA FORMATION. DEPTH 250 FEET, DIAMETER 18 INCHES. MEASURING POINT, HOLE ON EAST SIDE OF PUMP, 2.0 FEET ABOVE LSD. MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 3739. FEET

RECORDS AVAILABLE 1966 TO CURRENT YEAR.

HIGHEST WATER LEVEL 131.34 FEET BELOW LAND SURFACE DATUM MAR 30, 1966.

LOWEST WATER LEVEL 163.41 FEET BELOW LAND SURFACE DATUM SEP 13, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 31, 1979 151.5 ; MAR 14, 1979 158.56 ; JUN 19, 1979 152.16 ; SEP 10, 1979 158.96 .

WELL 17S 39W-02BAA 01 SITE NUMBER 383643101354101

17-39W-2BAA. NORMAN H. WEDALT. DRILLED, WATER-TABLE IRRIGATION WELL IN THE OGALLALA FORMATION. DEPTH NOT REPORTED. MEASURING POINT, HOLE IN PUMP BASE, 0.5 FOOT ABOVE LSD. MEASURED BY K.S.B.A. REPLACES WELL 16-39W-33CCC.

ALTITUDE OF LAND SURFACE 3511. FEET

RECORDS AVAILABLE 1972, 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 101.76 FEET BELOW LAND SURFACE DATUM FEB 01, 1972.

LOWEST WATER LEVEL 197.4 FEET BELOW LAND SURFACE DATUM JAN 26, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 31, 1979 112.1 ; MAR 14, 1979 109.22 ; JUN 19, 1979 111.43 ; SEP 10, 1979 118.34 R.

WELL 17S 39W 22ABB 01 SITE NUMBER 383405101363901

17-39W-22ABB. F. H. KLEYMANN AND SONS. DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FORMATION. DEPTH 194 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN EAST SIDE OF PUMP BASE, 0.3 FOOT ABOVE LSD. G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 3527. FEET

RECORDS AVAILABLE 1965 TO CURRENT YEAR.

HIGHEST WATER LEVEL 119.50 FEET BELOW LAND SURFACE DATUM JAN 28, 1965.

LOWEST WATER LEVEL 138.68 FEET BELOW LAND SURFACE DATUM SEP 17, 1974.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 29, 1979 127.2 ; MAR 14, 1979 129.39 ; SEP 10, 1979 132.63 .

GREELEY COUNTY -- CONTINUED

WELL 17S 40W 15CCB 01 SITE NUMBER 383418101435701

17-40W-15CCB. J. E. SMITH. DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FORMATION, DEPTH 200 FEET, DIAMETER 18 INCHES. MEASURING POINT, HOLE IN EAST SIDE OF PUMP BASE, 0.4 FOOT ABOVE LSD. G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 3607. FEET

RECORDS AVAILABLE 1962 TO CURRENT YEAR.

HIGHEST WATER LEVEL 125.16 FEET BELOW LAND SURFACE DATUM NOV 05, 1962.

LOWEST WATER LEVEL 146.87 FEET BELOW LAND SURFACE DATUM SEP 13, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 31, 1979 136.15 ; MAR 14, 1979 135.86 ; JUN 19, 1979 136.92 ; SEP 10, 1979 139.28 .

WELL 17S 40W 31BBA 01 SITE NUMBER 383220101470001

17-40W-31BBA. SMITH RANCH. DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FORMATION, DEPTH 250 FEET. MEASURING POINT, HOLE IN WEST SIDE OF PUMP BASE, 0.3 FOOT ABOVE LSD. G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 3663. FEET

RECORDS AVAILABLE 1965 TO CURRENT YEAR.

HIGHEST WATER LEVEL 164.88 FEET BELOW LAND SURFACE DATUM SEP 28, 1965.

LOWEST WATER LEVEL 191.60 FEET BELOW LAND SURFACE DATUM SEP 16, 1975.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 30, 1979 175.35 ; MAR 14, 1979 173.94 ; JUN 19, 1979 185.05 ; SEP 10, 1979 173.61 .

WELL 17S 42W 27CBB 01 SITE NUMBER 383247101572001

17-42W-27CBB. CECIL DUNHAM. DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FORMATION, DEPTH 50 FEET, DIAMETER 8 INCHES. MEASURING POINT, EDGE OF HOLE EAST SIDE OF PUMP, 1.0 FOOT ABOVE LSD. MEASURING POINT CHANGED TO 1.1 FEET ABOVE LSD MARCH 10 1977. REPLACES WELL 17-41W-30DDD. MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 3768. FEET

RECORDS AVAILABLE 1971 TO CURRENT YEAR.

HIGHEST WATER LEVEL 34.47 FEET BELOW LAND SURFACE DATUM JAN 24, 1974.

LOWEST WATER LEVEL 46.28 FEET BELOW LAND SURFACE DATUM FEB 01, 1972.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 31, 1979 38.9 ; JUN 19, 1979 40.41 ; SEP 10, 1979 39.98 .

HAMILTON COUNTY

WELL 24S 40W 17BBB 01 SITE NUMBER 375815101462401

24-40W-17BBB. JOHN H. SMITH. DRILLED, WATER-TABLE IRRIGATION WELL IN PLIO-PLEIST SERIES. DEPTH 59 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE INSIDE PUMP BASE, SOUTHWEST CORNER, 0.8 FOOT ABOVE LSD. MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 3221. FEET

RECORDS AVAILABLE 1970 TO CURRENT YEAR.

HIGHEST WATER LEVEL 14.96 FEET BELOW LAND SURFACE DATUM DEC 11, 1973.

LOWEST WATER LEVEL 21.23 FEET BELOW LAND SURFACE DATUM SEP 14, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 04, 1979 16.7 ; MAR 16, 1979 18.72 ; SEP 14, 1979 21.23 .

HAMILTON COUNTY -- CONTINUED

WELL 26S 42W 17CB 01 SITE NUMBER 374708101562401

26-42W-17CB. MARION WECKERLY. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS, OGALLALA FORMATION, AND UNDIFFERENTIATED MESOZOIC DEPOSITS. DEPTH 749 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN PUMP BASE, AT LAND SURFACE. G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 3458. FEET

RECORDS AVAILABLE 1960 TO CURRENT YEAR.

HIGHEST WATER LEVEL 100.00 FEET BELOW LAND SURFACE DATUM FEB 06, 1960.

LOWEST WATER LEVEL 151.69 FEET BELOW LAND SURFACE DATUM JAN 08, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 08, 1979 151.69 ; MAR 20, 1979 148.86 ; JUN 12, 1979 150.49

WELL 26S 42W 22CDB 01 SITE NUMBER 374606101540201

26-42W-22CDB. HAROLD PAYNE. DRILLED, ARTESIAN IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 265 FEET, DIAMETER 16 INCHES. MEASURING POINT, SOUTHEAST SIDE OF PUMP, 1.00 FOOT ABOVE LSD. G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 3412. FEET

RECORDS AVAILABLE 1959 TO CURRENT YEAR.

HIGHEST WATER LEVEL 87.42 FEET BELOW LAND SURFACE DATUM JAN 05, 1960.

LOWEST WATER LEVEL 143.7 FEET BELOW LAND SURFACE DATUM JAN 08, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 08, 1979 143.7 ; MAR 20, 1979 138.98 ; JUN 12, 1979 139.24 ; SEP 12, 1979 139.82 .

HARVEY COUNTY

WELL 24S 02W 16BAA 01 SITE NUMBER 375810097324301

24-2W-16BAA. (886) F. H. MAIBER. DRILLED, UNUSED, WATER-TABLE WELL IN SAND AND GRAVEL OF PLEISTOCENE AGE. DIAMETER 1.25 INCHES, DEPTH 57 FEET. MEASURING POINT, TOP OF PIPE, 0.80 FOOT ABOVE LSD. MEASURED BY CITY OF WICHITA.

ALTITUDE OF LAND SURFACE 1402.23 FEET

RECORDS AVAILABLE 1939 TO CURRENT YEAR.

HIGHEST WATER LEVEL 2.34 FEET BELOW LAND SURFACE DATUM AUG 21, 1939.

LOWEST WATER LEVEL 31.73 FEET BELOW LAND SURFACE DATUM AUG 25, 1956.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 20, 1978	23.56	JAN 19, 1979	25.68	APR 20, 1979	24.09	JUL 20, 1979	23.64
NOV 20	25.73	FEB 20	25.04	MAY 18	23.53	AUG 21	26.67
DEC 20	25.29	MAR 20	24.66	JUN 20	24.98	SEP 19	25.56
JAN 02, 1979	23.61	APR 01	24.66	JUL 01	24.08		

HASKELL COUNTY

WELL 27S 33W 29DAA 01 SITE NUMBER 374013100564001

27-33W-29DAA. W. T. KELLS. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 452 FEET, DIAMETER 16 INCHES. MEASURING POINT, SLOPING PIPE WEST SIDE, 1.3 FEET ABOVE LSD. G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 2995. FEET

RECORDS AVAILABLE 1965 TO CURRENT YEAR.

HIGHEST WATER LEVEL 186.30 FEET BELOW LAND SURFACE DATUM JAN 20, 1966.

LOWEST WATER LEVEL 237.14 FEET BELOW LAND SURFACE DATUM JAN 12, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 12, 1979 237.14 ; MAR 27, 1979 235.16 ; JUN 13, 1979 235.71 .

HASKELL COUNTY -- CONTINUED

WELL 27S 34W 16DDD 03 SITE NUMBER 374136101020903

27-34W-16DDD3. TOMMY LEWIS. DRILLED, WATER-TABLE OBSERVATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 400 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 1.5 FEET ABOVE LSD. G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 2985. FEET

RECORDS AVAILABLE 1967 - 1977, 1979 TO CURRENT YEAR.

HIGHEST WATER LEVEL 140.05 FEET BELOW LAND SURFACE DATUM JAN 24, 1967.

LOWEST WATER LEVEL 159.36 FEET BELOW LAND SURFACE DATUM MAR 27, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

MAR 27, 1979 159.36 .

WELL 28S 32W 18BBB 01 SITE NUMBER 373710100521001

28-32W-18BBB. EARL MEAIRS. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 438 FEET, DIAMETER 18 INCHES. MEASURING POINT, TOP OF PIPE, 0.6 FOOT ABOVE LSD. G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 2951. FEET

RECORDS AVAILABLE 1966 TO CURRENT YEAR.

HIGHEST WATER LEVEL 203.3 FEET BELOW LAND SURFACE DATUM OCT 04, 1966.

LOWEST WATER LEVEL 268.82 FEET BELOW LAND SURFACE DATUM MAR 27, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 08, 1979 267.91 ; MAR 27, 1979 268.82 ; JUN 13, 1979 266.50

WELL 28S 32W 24BCC 01 SITE NUMBER 373556100464201

28-32W-24BCC. ALTA M. WEIDNER. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 250 FEET, DIAMETER 18 INCHES. MEASURING POINT, HOLE INSIDE PUMP BASE, EAST SIDE, 0.1 FOOT ABOVE LSD. G = MEASURED BY K.S.B.A. MP CHANGED TO 1.0 FOOT ABOVE LSD, JANUARY 1976.

ALTITUDE OF LAND SURFACE 2910. FEET

RECORDS AVAILABLE 1964 TO CURRENT YEAR.

HIGHEST WATER LEVEL 172.30 FEET BELOW LAND SURFACE DATUM JUL 07, 1965.

LOWEST WATER LEVEL 213.50 FEET BELOW LAND SURFACE DATUM SEP 15, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 08, 1979 210.94 ; MAR 29, 1979 210.65 ; JUN 13, 1979 211.91 .

WELL 28S 33W 21BCC 01 SITE NUMBER 373558100563201

28-33W-21BCC. DAVE RINEHART. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORAMTION. DEPTH 310 FEET, DIAMETER 16 INCHES. MEASURING POINT, TOP OF ACCESS PIPE, 0.5 FOOT SOUTH OF PUMP, 0.35 FOOT ABOVE LSD. G - MEASURED BY K.S.B.A. DESTROYED JUNE 1979. REPLACED BY 28S 33W 21BCB 01.

ALTITUDE OF LAND SURFACE 2974. FEET

RECORDS AVAILABLE 1964 - 1979.

HIGHEST WATER LEVEL 227.20 FEET BELOW LAND SURFACE DATUM MAR 15, 1966.

LOREST WATER LEVEL 296.2 FEET BELOW LAND SURFACE DATUM JAN 12, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 12, 1979 296.2 .

HASKELL COUNTY -- CONTINUED

WELL 28S 34W 15DAB 01 SITE NUMBER 373642101011201

28-34W-15DAB. R. & A. STONESTREET. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 408 FEET, DIAMETER 16 INCHES. MEASURING POINT, SLOPING PIPE IN SOUTH SIDE OF PUMP, 1.0 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 3020. FEET

RECORDS AVAILABLE 1966, 1970 - 1974, 1976 TO CURRENT YEAR.

HIGHEST WATER LEVEL 263.0 FEET BELOW LAND SURFACE DATUM JUN 06, 1966.

LOWEST WATER LEVEL 323.59 FEET BELOW LAND SURFACE DATUM JUN 13, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 12, 1979 319.61 ; JUN 13, 1979 323.59 .

WELL 29S 32W 26CBB 02 SITE NUMBER 372944100474902

29-32W-26CBB2. KELLY MCCLURE. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 384 FEET, DIAMETER 16 INCHES. MEASURING POINT, 0.7 FOOT ABOVE LSD. MEASURED BY K.S.B.A. REPLACEMENT WELL FOR 29-32W-26CCB.

ALTITUDE OF LAND SURFACE 2895. FEET

RECORDS AVAILABLE 1960 TO CURRENT YEAR.

HIGHEST WATER LEVEL 199.16 FEET BELOW LAND SURFACE DATUM JAN 06, 1961.

LOWEST WATER LEVEL 241.16 FEET BELOW LAND SURFACE DATUM MAR 29, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 08, 1979 239.31 ; MAR 29, 1979 241.16 ; JUN 13, 1979 240.57 .

WELL 29S 33W 28BCB 01 SITE NUMBER 372958100563301

29-33W-28BCB. S. + G. HALL. DRILLED, WATER-TABLE OBSERVATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH NOT REPORTED. MEASURING POINT, LOWER LIP OF SLANT PIPE, NORTH SIDE OF CONCRETE, 0.3 FOOT ABOVE LSD. REPLACES WELL 29-33W-15BBA.

ALTITUDE OF LAND SURFACE 2963. FEET

RECORDS AVAILABLE 1970, 1973 TO CURRENT YEAR.

HIGHEST WATER LEVEL 257.03 FEET BELOW LAND SURFACE DATUM JAN 21, 1970.

LOWEST WATER LEVEL 279.43 FEET BELOW LAND SURFACE DATUM JAN 09, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 09, 1979 279.43 ; MAR 29, 1979 272.73 ; JUN 13, 1979 273.50 .

WELL 29S 34W 11ADD 01 SITE NUMBER 373228100595701

29-34W-11ADD. M. C. WICKER. DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FORMATION. DEPTH 505 FEET, DIAMETER 16 INCHES. MEASURING POINT, TOP EDGE BOLT HOLE IN NORTHEAST SIDE OF PUMP BASE, 0.3 FOOT ABOVE LSD. G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 2961. FEET

RECORDS AVAILABLE 1964 - 1973, 1976 TO CURRENT YEAR.

HIGHEST WATER LEVEL 209.72 FEET BELOW LAND SURFACE DATUM JAN 20, 1966.

LOWEST WATER LEVEL 274.55 FEET BELOW LAND SURFACE DATUM MAR 29, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 09, 1979 274.33 ; MAR 29, 1979 274.55 ; JUN 13, 1979 270.10 .

HASKELL COUNTY -- CONTINUED

WELL 30S 31W 15ABB 01 SITE NUMBER 372640100414601

30-31W-15ABB. LEROY STAPELTON. DRILLED, WATER-TABLE IRRIGATION WELL. DEPTH 348 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN PUMP BASE, 1.5 FEET ABOVE LSD.

ALTITUDE OF LAND SURFACE 2852. FEET

RECORDS AVAILABLE 1948, 1970 TO CURRENT YEAR.

HIGHEST WATER LEVEL 180.73 FEET BELOW LAND SURFACE DATUM MAR 08, 1971.

LOWEST WATER LEVEL 242.54 FEET BELOW LAND SURFACE DATUM MAR 29, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 08, 1979 224.03 ; MAR 29, 1979 242.54 ; JUN 14, 1979 221.44 ; SEP 05, 1979 233.31 S.

WELL 30S 32W 11BBB 01 SITE NUMBER 372733100474901

30-32W-11BBB. VIRGIL WATSON. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 412 FEET, DIAMETER 16 INCHES. MEASURING POINT, EDGE OF SLOPING 1.5-INCH PIPE ON EAST SIDE OF PUMP-HEAD BASE, 0.7 FOOT ABOVE LSD. G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 2885. FEET

RECORDS AVAILABLE 1961 TO CURRENT YEAR.

HIGHEST WATER LEVEL 195.39 FEET BELOW LAND SURFACE DATUM APR 02, 1962.

LOWEST WATER LEVEL 243.61 FEET BELOW LAND SURFACE DATUM JAN 08, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 08, 1979 243.61 ; MAR 29, 1979 235.93 ; JUN 14, 1979 240.71 .

WELL 30S 32W 31BAB 01 SITE NUMBER 372405100515601

30-32W-31BAB. LEMON + MILLER. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 380 FEET, DIAMETER 16 INCHES. MEASURING POINT, LOWER LIP OF SLOPING PIPE, SOUTH SIDE OF PUMP, 0.6 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 2906. FEET

RECORDS AVAILABLE 1958 - 1959, 1964 - 1966, 1968 TO CURRENT YEAR.

HIGHEST WATER LEVEL 195.38 FEET BELOW LAND SURFACE DATUM FEB 24, 1959.

LOWEST WATER LEVEL 246.03 FEET BELOW LAND SURFACE DATUM JAN 08, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 08, 1979 246.03 ; MAR 05, 1979 243.9 ; JUN 14, 1979 245.27 .

WELL 30S 33W 30CBD 01 SITE NUMBER 372425100583501

30-33W-30CBD. EMIL SCHNELLBACKER. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 415 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN PUMP BASE, 0.3 FOOT ABOVE LSD. G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 2963. FEET

RECORDS AVAILABLE 1965 - 1966, 1968 TO CURRENT YEAR.

HIGHEST WATER LEVEL 219.78 FEET BELOW LAND SURFACE DATUM JAN 20, 1966.

LOWEST WATER LEVEL 251.90 FEET BELOW LAND SURFACE DATUM JUN 13, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 09, 1979 245.56 ; MAR 29, 1979 244.58 ; JUN 13, 1979 251.90 .

HASKELL COUNTY -- CONTINUED

WELL 30S 34W 05BBB 01 SITE NUMBER 372825101041201

30-34W-5BBB. ROONEY AND ROONEY. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION, DEPTH 410 FEET, DIAMETER 16 INCHES. MEASURING POINT, TOP EDGE OF SLOPING PIPE, EAST SIDE, 0.5 FOOT ABOVE LSD. G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 3006. FEET

RECORDS AVAILABLE 1957 - 1958, 1960, 1963 TO CURRENT YEAR.

HIGHEST WATER LEVEL 190.00 FEET BELOW LAND SURFACE DATUM FEB 15, 1957.

LOWEST WATER LEVEL 275.48 FEET BELOW LAND SURFACE DATUM JAN 09, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 09, 1979 275.48 ; JUN 13, 1979 273.97 .

WELL 30S 34W 30ADD 02 SITE NUMBER 372436101042002

30-34W-30ADD2. OWNER UNKNOWN. DRILLED, WATER-TABLE OBSERVATION WELL. DEPTH NOT REPORTED, DIAMETER 8 INCHES. MEASURING POINT, TOP OF CASING, 1.8 FEET ABOVE LSD. REPLACEMENT WELL FOR 30-34W-30ADD.

ALTITUDE OF LAND SURFACE 2843. FEET

RECORDS AVAILABLE 1978 TO CURRENT YEAR.

HIGHEST WATER LEVEL 82.71 FEET BELOW LAND SURFACE DATUM APR 25, 1978.

LOWEST WATER LEVEL 86.38 FEET BELOW LAND SURFACE DATUM JUN 13, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JUN 13, 1979 86.38 ; SEP 13, 1979 88.07 R.

HODGEMAN COUNTY

WELL 21S 22W 12BCB 01 SITE NUMBER 381430099414001

21-22W-12BCB. (3A) HAROLD MCFADDEN. BORED, WATER-TABLE IRRIGATION WELL IN ALLUVIUM. DIAMETER 16 INCHES, DEPTH 72 FEET. MEASURING POINT, HOLE ON INSIDE OF NORTHWEST CORNER PUMP BASE, 1.74 FEET ABOVE LSD. G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 2156.6 FEET

RECORDS AVAILABLE 1960 TO CURRENT YEAR.

HIGHEST WATER LEVEL 28.10 FEET BELOW LAND SURFACE DATUM APR 17, 1962.

LOWEST WATER LEVEL 54.21 FEET BELOW LAND SURFACE DATUM MAR 23, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 27, 1978 51.66 ; MAR 29, 1979 47.81 ; JUN 19, 1979 46.80 ; SEP 09, 1979 54.75 R.

WELL 22S 22W 13CCC 01 SITE NUMBER 380752099414101

22-22W-13CCC. WILLIAM MACEY. DRILLED, WATER-TABLE OBSERVATION WELL IN ALLUVIUM. DIAMETER 1.25 INCHES, DEPTH 49 FEET. MEASURING POINT, TOP OF PIPE, 3.4 FEET ABOVE LSD. G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 2152. FEET

RECORDS AVAILABLE 1965 TO CURRENT YEAR.

HIGHEST WATER LEVEL 23.70 FEET BELOW LAND SURFACE DATUM DEC 20, 1965.

LOWEST WATER LEVEL 36. FEET BELOW LAND SURFACE DATUM SEP 21, 1976.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 27, 1978 33.46 ; MAR 29, 1979 32.63 ; JUN 19, 1979 31.83 ; SEP 19, 1979 29.36 .

HODGEMAN COUNTY -- CONTINUED

WELL 22S 23W 31ADD 01 SITE NUMBER 380544099525201

22-23W-31ADD. DANIEL L. MAYS. DRILLED, WATER-TABLE STOCK WELL IN DAKOTA FORMATION. DEPTH 315 FEET, DIAMETER 6 INCHES. MEASURING POINT, TOP OF CONCRETE, 0.8 FOOT ABOVE LSD. MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 2340. FEET

RECORDS AVAILABLE 1969 TO CURRENT YEAR.

HIGHEST WATER LEVEL 123.99 FEET BELOW LAND SURFACE DATUM APR 27, 1973.

LOWEST WATER LEVEL 233.30 FEET BELOW LAND SURFACE DATUM AUG 27, 1971.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 05, 1978 210.08 ; JAN 03, 1979 167.1 ; APR 17, 1979 149.44 ; JUN 27, 1979 153.11 .

WELL 22S 24W 14BBC 01 SITE NUMBER 380833099560201

22-24W-14BBC. CLARE SHRIWISE. DRILLED, ARTESIAN IRRIGATION WELL IN DAKOTA FORMATION. DEPTH 560 FEET, DIAMETER 16 INCHES. MEASURING POINT, 3/4-INCH PLUG IN SOUTHWEST CORNER OF PUMP BASE, 0.2 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 2460. FEET

RECORDS AVAILABLE 1971 - 1976, 1978 TO CURRENT YEAR.

HIGHEST WATER LEVEL 252.08 FEET BELOW LAND SURFACE DATUM MAR 22, 1971.

LOWEST WATER LEVEL 369.05 FEET BELOW LAND SURFACE DATUM OCT 05, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 05, 1978 369.05 ; JAN 03, 1979 303.69 ; APR 17, 1979 280.15 ; JUN 27, 1979 288.64 .

WELL 22S 24W 15BDA 01 SITE NUMBER 380827099564301

22-24W-15BDA. W. E. MCKIBBEN. DRILLED, ARTESIAN IRRIGATION WELL IN DAKOTA FORMATION. DEPTH 588 FEET, DIAMETER 16 INCHES. MEASURING POINT, 3/4-INCH PLUG IN SOUTHEAST CORNER OF PUMP BASE, 1.0 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 2463. FEET

RECORDS AVAILABLE 1971 TO CURRENT YEAR.

HIGHEST WATER LEVEL 249.35 FEET BELOW LAND SURFACE DATUM MAR 21, 1973.

LOWEST WATER LEVEL 343.93 FEET BELOW LAND SURFACE DATUM OCT 04, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 03, 1979 304.24 ; APR 17, 1979 280.52 ; JUN 27, 1979 289.14

WELL 22S 24W 16ADB 02 SITE NUMBER 380827099572502

22-24W-16ADB2. WAYNE SHRIWISE. DRILLED, UNUSED, ARTESIAN WELL IN THE DAKOTA FORMATION. DEPTH 565 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF CASING, AT LAND SURFACE. MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 2465. FEET

RECORDS AVAILABLE 1972 TO CURRENT YEAR.

HIGHEST WATER LEVEL 242.70 FEET BELOW LAND SURFACE DATUM MAY 23, 1973.

LOWEST WATER LEVEL 341.88 FEET BELOW LAND SURFACE DATUM SEP 28, 1976.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 05, 1978 339.29 ; JAN 03, 1979 301.15 ; APR 17, 1979 275.9 ; JUN 27, 1979 284.03 .

HODGEMAN COUNTY -- CONTINUED

WELL 22S 24W 24DDD 01 SITE NUMBER 380701099535801

22-24W-24DDD. BERNARD SPRINGER. DRILLED, ARTESIAN DOMESTIC WELL IN THE DAKOTA FORMATION. DEPTH 410 FEET, DIAMETER 6 INCHES. MEASURING POINT, HOLE IN PLATE, TOP OF CASING, 4.7 FEET BELOW LSD.

ALTITUDE OF LAND SURFACE 2360. FEET

RECORDS AVAILABLE 1970 - 1977, 1979 TO CURRENT YEAR.

HIGHEST WATER LEVEL 154.40 FEET BELOW LAND SURFACE DATUM MAR 22, 1971.

LOWEST WATER LEVEL 252.15 FEET BELOW LAND SURFACE DATUM AUG 27, 1971.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 03, 1979 198.79 .

WELL 22S 24W 25DDC 01 SITE NUMBER 380609099540701

22-24W-25DDC. DARRELL CRAGHEAD. DRILLED, ARTESIAN STOCK WELL IN DAKOTA FORMATION. DEPTH 330 FEET, DIAMETER 6 INCHES. MEASURING POINT, HOLE IN PLATE ON TOP OF CASING, 5.0 FEET BELOW LSD.

ALTITUDE OF LAND SURFACE 2332. FEET

RECORDS AVAILABLE 1970 TO CURRENT YEAR.

HIGHEST WATER LEVEL 128.27 FEET BELOW LAND SURFACE DATUM MAR 21, 1973.

LOWEST WATER LEVEL 226.35 FEET BELOW LAND SURFACE DATUM AUG 27, 1971.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 05, 1978 214.69 ; JAN 03, 1979 172.23 ; APR 17, 1979 153.55 ; JUN 27, 1979 156.08 .

WELL 22S 24W 26DDA 01 SITE NUMBER 380616099550401

22-24W-26DDA. LEONARD FORD. DRILLED, ARTESIAN STOCK WELL IN DAKOTA FORMATION. DEPTH 240 FEET, DIAMETER 6 INCHES. MEASURING POINT, HOLE IN WEST SIDE OF PUMP BASE, 0.5 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 2365. FEET

RECORDS AVAILABLE 1970 - 1972, 1974, 1976 - 1977.

HIGHEST WATER LEVEL 159.48 FEET BELOW LAND SURFACE DATUM DEC 23, 1977.

LOWEST WATER LEVEL 194.50 FEET BELOW LAND SURFACE DATUM JUL 23, 1971.

WATER LEVELS WERE NOT MEASURED IN THIS WELL BETWEEN 10/01/1978 AND 09/30/1979

WELL 22S 24W 34CDC 01 SITE NUMBER 380517099565201

22-24W-34CDC. CECIL J. SHELTON. DRILLED, ARTESIAN DOMESTIC AND STOCK WELL IN DAKOTA FORMATION. DEPTH 416 FEET, DIAMETER 6 INCHES. MEASURING POINT, TOP OF METAL RING, SOUTH SIDE OF PIT, 0.3 FOOT ABOVE LSD. DISCONTINUED 1979.

ALTITUDE OF LAND SURFACE 2354. FEET

RECORDS AVAILABLE 1970 - 1978.

HIGHEST WATER LEVEL 146.74 FEET BELOW LAND SURFACE DATUM MAR 21, 1973.

LOWEST WATER LEVEL 231.07 FEET BELOW LAND SURFACE DATUM SEP 28, 1976.

WATER LEVELS WERE NOT MEASURED IN THIS WELL BETWEEN 10/01/1978 AND 09/30/1979

HODGEMAN COUNTY -- CONTINUED

WELL 22S 24W 35DAC 01 SITE NUMBER 380530099551301

22-24W-35DAC. J. S. OWENS. DRILLED, ARTESIAN STOCK WELL IN DAKOTA FORMATION, DEPTH 282 FEET, DIAMETER 6 INCHES, MEASURING POINT, HOLE IN WEST SIDE OF PLATE, TOP OF CASING, 2.0 FEET ABOVE LSD.

ALTITUDE OF LAND SURFACE 2312. FEET

RECORDS AVAILABLE 1970 TO CURRENT YEAR.

HIGHEST WATER LEVEL 107.10 FEET BELOW LAND SURFACE DATUM MAR 21, 1973.

LOWEST WATER LEVEL 198.55 FEET BELOW LAND SURFACE DATUM OCT 05, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 05, 1978 198.55 ; JAN 03, 1979 155.94 .

WELL 23S 22W 07DAA 01 SITE NUMBER 380351099461501

23-22W-7DAA. FRED KOHF. DRILLED, ARTESIAN OBSERVATION WELL IN DAKOTA FORMATION, DEPTH 482 FEET, DIAMETER 1.25 INCH. MEASURING POINT, TOP OF CASING, 1.3 FEET ABOVE LSD. MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 2239. FEET

RECORDS AVAILABLE 1972 TO CURRENT YEAR.

HIGHEST WATER LEVEL 81.45 FEET BELOW LAND SURFACE DATUM JUN 24, 1974.

LOWEST WATER LEVEL 127.07 FEET BELOW LAND SURFACE DATUM SEP 23, 1975.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 05, 1978 99.1 ; JAN 03, 1979 89.82 ; APR 17, 1979 87.02 ; JUN 27, 1979 87.37 .

WELL 23S 23W 04AAD 01 SITE NUMBER 380504099504001

23-23W-4AAD. N. H. BRISTOW. DRILLED, ARTESIAN IRRIGATION WELL IN DAKOTA FORMATION, DEPTH 282 FEET, DIAMETER 16 INCHES. MEASURING POINT, 3/4-INCH PLUG IN NORTHEAST CORNER OF PUMP BASE, 0.5 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 2235. FEET

RECORDS AVAILABLE 1970 TO CURRENT YEAR.

HIGHEST WATER LEVEL 28.46 FEET BELOW LAND SURFACE DATUM MAR 21, 1973.

LOWEST WATER LEVEL 110.85 FEET BELOW LAND SURFACE DATUM SEP 23, 1975.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 05, 1978 81.93 ; JAN 03, 1979 49.64 ; APR 17, 1979 38.42 ; JUN 27, 1979 39.63 .

HODGEMAN COUNTY -- CONTINUED

WELL 23S 23W 04DCA 01 SITE NUMBER 380432099505701

23-23W-4DCA. DARWELL W. HOAGLAND. DRILLED, ARTESIAN IRRIGATION WELL IN DAKOTA FORMATION. DEPTH 264 FEET, DIAMETER 16 INCHES. MEASURING POINT, 3/4-INCH PLUG IN NORTHEAST CORNER OF PUMP BASE, 0.8 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 2236. FEET

RECORDS AVAILABLE 1970 - 1977, 1979 TO CURRENT YEAR.

HIGHEST WATER LEVEL 26.02 FEET BELOW LAND SURFACE DATUM MAR 21, 1973.

LOWEST WATER LEVEL 102.10 FEET BELOW LAND SURFACE DATUM OCT 28, 1971.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 03, 1979 55.15 .

WELL 23S 23W 12ABD 01 SITE NUMBER 380412099473801

23-23W-12ABD. J. J. JARNAGIN, JR. DRILLED, ARTESIAN IRRIGATION WELL IN DAKOTA FORMATION. DEPTH 245 FEET, DIAMETER 16 INCHES. MEASURING POINT, FLAP IN SOUTHWEST CORNER OF PUMP BASE, 0.7 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 2256. FEET

RECORDS AVAILABLE 1970 - 1977, 1979 TO CURRENT YEAR.

HIGHEST WATER LEVEL 81.52 FEET BELOW LAND SURFACE DATUM JAN 26, 1971.

LOWEST WATER LEVEL 141.80 FEET BELOW LAND SURFACE DATUM AUG 27, 1971.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 03, 1979 96.47

WELL 23S 24W 11DAA 01 SITE NUMBER 380352099550501

23-24W-11DAA. TRACY JONES. DRILLED, ARTESIAN STOCK WELL IN DAKOTA FORMATION. DEPTH 300 FEET, DIAMETER 6 INCHES. MEASURING POINT, HOLE IN PLATE, TOP OF CASING, 1.0 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 2335. FEET

RECORDS AVAILABLE 1970 - 1971, 1973 TO CURRENT YEAR.

HIGHEST WATER LEVEL 125.87 FEET BELOW LAND SURFACE DATUM MAR 21, 1973.

LOWEST WATER LEVEL 205.23 FEET BELOW LAND SURFACE DATUM SEP 25, 1974.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 05, 1978 177.8 ; JAN 03, 1979 176.1 ; APR 17, 1979 152.67 ; JUN 27, 1979 166.55 .

WELL 23S 24W 28BCC 01 SITE NUMBER 380123099581401

23-24W-28BCC. GEORGE MARMAN. DRILLED, ARTESIAN OBSERVATION WELL IN DAKOTA FORMATION. DEPTH 570 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF CASING, 3.2 FEET ABOVE LSD. MEASURED BY K.S.B.A. MEASURING POINT CHANGED TO LSD DECEMBER 1977.

ALTITUDE OF LAND SURFACE 2481. FEET

RECORDS AVAILABLE 1972 TO CURRENT YEAR.

HIGHEST WATER LEVEL 195.80 FEET BELOW LAND SURFACE DATUM OCT 24, 1972.

LOWEST WATER LEVEL 233.94 FEET BELOW LAND SURFACE DATUM OCT 05, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 05, 1978 233.94 ; APR 17, 1979 232.94 ; JUN 27, 1979 231.61 .

HODGEMAN COUNTY -- CONTINUED

WELL 23S 25W 22DBB 01 SITE NUMBER 380207100031301

23-25W-22DBB. ROY CARDER. DRILLED, WATER-TABLE IRRIGATION WELL IN THE DAKOTA FORMATION. DEPTH 575 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN SOUTH SIDE OF PUMP BASE, 0.8 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 2522. FEET

RECORDS AVAILABLE 1973 TO CURRENT YEAR.

HIGHEST WATER LEVEL 233.2 FEET BELOW LAND SURFACE DATUM MAY 24, 1973.

LOWEST WATER LEVEL 296.42 FEET BELOW LAND SURFACE DATUM OCT 02, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 02, 1978 296.42 ; JAN 03, 1979 280.44 ; APR 17, 1979 265.05 ; JUN 27, 1979 274.50 .

WELL 23S 26W 07CCC 01 SITE NUMBER 380335100132701

23-26W-7CCC. HARRY CUHOON. DRILLED WATER-TABLE IRRIGATION WELL IN DAKOTA FORMATION. DEPTH 500 FEET. MEASURING POINT, PLUG SOUTHWEST SIDE PUMP BASE, 0.7 FOOT ABOVE LSD. G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 2612. FEET

RECORDS AVAILABLE 1968 TO CURRENT YEAR.

HIGHEST WATER LEVEL 272.92 FEET BELOW LAND SURFACE DATUM APR 09, 1969.

LOWEST WATER LEVEL 330.20 FEET BELOW LAND SURFACE DATUM JAN 12, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

MAR 06, 1979 324.94 ; JUN 28, 1979 320.79 ; SEP 06, 1979 329.81 .

WELL 24S 23W 06AAB 01 SITE NUMBER 375958099530101

24-23W-6AAB. FRANK WOLF. DRILLED, ARTESIAN, IRRIGATION WELL IN THE DAKOTA FORMATION. DEPTH 517 FEET, DIAMETER 16 INCHES. MEASURING POINT, EDGE OF PIPE, SOUTH SIDE, 1.1 FEET ABOVE LSD.

ALTITUDE OF LAND SURFACE 2457. FEET

RECORDS AVAILABLE 1973 TO CURRENT YEAR.

HIGHEST WATER LEVEL 216.00 FEET BELOW LAND SURFACE DATUM FEB 21, 1973.

LOWEST WATER LEVEL 268.33 FEET BELOW LAND SURFACE DATUM SEP 26, 1976.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 05, 1978 235.06 ; JAN 03, 1979 226.38 ; APR 17, 1979 221.13 ; JUN 27, 1979 217.80 .

WELL 24S 26W 35CBC 01 SITE NUMBER 375502100090801

24-26W-35CBC.A. C. JAMES. DRILLED, WATER-TABLE STOCK WELL IN OGALLALA FORMATION, DIAMETER 5.5 INCHES, DEPTH 86 FEET. MEASURING POINT, TOP NORTH SIDE OF CASING, 0.60 FOOT ABOVE LSD.
G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 2608.8 FEET

RECORDS AVAILABLE 1954 TO CURRENT YEAR.

HIGHEST WATER LEVEL 63.18 FEET BELOW LAND SURFACE DATUM MAR 27, 1975.

LOWEST WATER LEVEL 67.30 FEET BELOW LAND SURFACE DATUM JAN 06, 1975.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 05, 1978 63.45 ; JAN 03, 1979 63.47 ; APR 17, 1979 63.51 ; JUN 27, 1979 63.46 .

KEARNY COUNTY

WELL 23S 35W 12CCC 01 SITE NUMBER 380344101071301

23-35W-12CCC. E. S. WHITE, DRILLED, ARTESIAN IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 378 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN EAST SIDE OF PUMP BASE, 0.1 FOOT ABOVE LSD. G = MEASURED BY U.S.B.R. OR K.S.B.A.

ALTITUDE OF LAND SURFACE 3009.0 FEET

RECORDS AVAILABLE 1958, 1961 TO CURRENT YEAR.

HIGHEST WATER LEVEL 66.60 FEET BELOW LAND SURFACE DATUM MAY 12, 1958.

LOWEST WATER LEVEL 144.53 FEET BELOW LAND SURFACE DATUM SEP 19, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 09, 1979 140.2 ; MAR 08, 1979 137.77 ; JUN 25, 1979 141.53 ; SEP 19, 1979 144.53 .

WELL 23S 37W 04ABC 01 SITE NUMBER 380510101231101

23-37W-4ABC. WIATT FARMS, INC. DRILLED, WATER-TABLE OBSERVATION WELL. DEPTH NOT REPORTED. MEASURING POINT, REMOVE PLUG, NORTHWEST SIDE, 0.3 FOOT ABOVE LSD. MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 3281. FEET

RECORDS AVAILABLE 1978 TO CURRENT YEAR.

HIGHEST WATER LEVEL 188.6 FEET BELOW LAND SURFACE DATUM JAN 08, 1979.

LOWEST WATER LEVEL 250.35 FEET BELOW LAND SURFACE DATUM MAR 08, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 08, 1979 188.6 ; MAR 08, 1979 250.35 ; JUN 25, 1979 196.70 .

WELL 23S 37W 09ADD 01 SITE NUMBER 380405101224601

23-37W-9ADD. J. L. BURNETT, DRILLED, UNUSED, WATER-TABLE DOMESTIC WELL IN OGALLALA FORMATION. DEPTH NOT REPORTED, DIAMETER 6 INCHES. MEASURING POINT, TOP OF CASING, 0.2 FOOT ABOVE LSD. DISCONTINUED 1979.

ALTITUDE OF LAND SURFACE 3288. FEET

RECORDS AVAILABLE 1940, 1961 TO CURRENT YEAR.

HIGHEST WATER LEVEL 199.67 FEET BELOW LAND SURFACE DATUM FEB 06, 1962.

LOWEST WATER LEVEL WELL DRY JAN 08, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 08, 1979 DRY .

WELL 24S 35W 13CCC 02 SITE NUMBER 375738101071302

24-35W-13CCC2, ROBERT GLUNT. DRILLED, WATER-TABLE IRRIGATION WELL IN ALLUVIUM DEPOSITS. DEPTH 50 FEET, DIAMETER 5 INCHES. MEASURING POINT, HOLE IN WEST SIDE OF PUMP BASE, 1.35 FEET ABOVE LSD. PUMP REMOVED, MP CHANGED TO LAND SURFACE, SEPTEMBER 19, 1979.

ALTITUDE OF LAND SURFACE 2941. FEET

RECORDS AVAILABLE 1962 - 1968, 1970 TO CURRENT YEAR.

HIGHEST WATER LEVEL 8.28 FEET BELOW LAND SURFACE DATUM JAN 26, 1966.

LOWEST WATER LEVEL 24.29 FEET BELOW LAND SURFACE DATUM SEP 19, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 09, 1979 21.22 ; MAR 08, 1979 20.96 ; JUN 25, 1979 21.27 ; SEP 19, 1979 24.29 .

KEARNY COUNTY -- CONTINUED

WELL 25S 35W 02BAA 01 SITE NUMBER 375454101075401

25-35W-28AA. DEAN GIGOT. DRILLED, WATER-TABLE OBSERVATION WELL. DEPTH 300 FEET, DIAMETER 2 INCHES. MEASURING POINT, TOP OF PIPE, 1.46 FEET ABOVE LSD. DESIGNATION CHANGED TO 25-35W-28AA APRIL 1977, WAS 25-35W-28BB.

ALTITUDE OF LAND SURFACE 2990. FEET

RECORDS AVAILABLE 1975 TO CURRENT YEAR.

HIGHEST WATER LEVEL 71.54 FEET BELOW LAND SURFACE DATUM APR 01, 1975.

LOWEST WATER LEVEL 90.85 FEET BELOW LAND SURFACE DATUM SEP 19, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 05, 1979 86.11 ; MAR 08, 1979 85.03 ; JUN 25, 1979 85.37 ; SEP 19, 1979 90.85 .

WELL 25S 35W 17AAA 01 SITE NUMBER 375307101103901

25-35W-17AAA. C. C. CATTLE CO., INC. DRILLED, WATER-TABLE IRRIGATION WELL. DEPTH NOT REPORTED. MEASURING POINT, HOLE IN NORTH SIDE OF PUMP BASE, AT LAND SURFACE.

ALTITUDE OF LAND SURFACE 2990. FEET

RECORDS AVAILABLE 1975 TO CURRENT YEAR.

HIGHEST WATER LEVEL 56.60 FEET BELOW LAND SURFACE DATUM APR 24, 1975.

LOWEST WATER LEVEL 75.9 FEET BELOW LAND SURFACE DATUM JAN 05, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 05, 1979 75.9 ; MAR 08, 1979 74.37 .

WELL 25S 35W 26BAB 01 SITE NUMBER 375124101080201

25-35W-26BAB. GEORGE H. TATE, III. DRILLED, WATER-TABLE IRRIGATION WELL. DEPTH NOT REPORTED. MEASURING POINT, HOLE IN NORTHEAST SIDE OF PUMP BASE, 0.6 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 2990. FEET

RECORDS AVAILABLE 1975 TO CURRENT YEAR.

HIGHEST WATER LEVEL 74.31 FEET BELOW LAND SURFACE DATUM JUN 03, 1975.

LOWEST WATER LEVEL 94.53 FEET BELOW LAND SURFACE DATUM JAN 05, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 05, 1979 94.53 ; MAR 08, 1979 93.46 .

WELL 25S 36W 28BBD 01 SITE NUMBER 375115101165801

25-36W-28BBD. BARR + ROUNDS. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 362 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN WEST SIDE OF PUMP BASE, 0.1 FOOT ABOVE LSD. MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 3050. FEET

RECORDS AVAILABLE 1969 TO CURRENT YEAR.

HIGHEST WATER LEVEL 56.55 FEET BELOW LAND SURFACE DATUM APR 27, 1970.

LOWEST WATER LEVEL 77.09 FEET BELOW LAND SURFACE DATUM SEP 19, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 05, 1979 68.6 ; MAR 08, 1979 64.15 .

KEARNY COUNTY -- CONTINUED

WELL 25S 37W 15ABA 02 SITE NUMBER 375305101215502

25-37W-15ABA2. CARL MARQUARDT. DRILLED, WATER-TABLE OBSERVATION WELL IN ALLUVIUM, DEPTH 29 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 5.0 FEET ABOVE LSD. REPLACEMENT WELL FOR 25-37W-15ABA.

ALTITUDE OF LAND SURFACE 3050. FEET

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 8.67 FEET BELOW LAND SURFACE DATUM OCT 02, 1969.

LOWEST WATER LEVEL 12.75 FEET BELOW LAND SURFACE DATUM MAR 08, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 05, 1979 12.25 ; MAR 08, 1979 12.75 ; JUN 25, 1979 12.67 ; SEP 19, 1979 12.66 .

WELL 26S 36W 04BDA 01 SITE NUMBER 374919101154601

26-36W-4BDA. KANS. MASONIC HOME. DRILLED, UNUSED WATER-TABLE OBSERVATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS. DEPTH 148 FEET, DIAMETER 8 INCHES. MEASURING POINT, TOP OF 8-INCH PIPE, 2.0 FEET ABOVE LSD.

ALTITUDE OF LAND SURFACE 3034. FEET

RECORDS AVAILABLE 1965 TO CURRENT YEAR.

HIGHEST WATER LEVEL 55.86 FEET BELOW LAND SURFACE DATUM MAY 02, 1966.

LOWEST WATER LEVEL 84.41 FEET BELOW LAND SURFACE DATUM SEP 19, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 05, 1979 74.07 ; MAR 08, 1979 73.73 ; JUN 25, 1979 75.09 ; SEP 19, 1979 84.41 .

KINGMAN COUNTY

WELL 27S 10W 03DDD 01 SITE NUMBER 374309098232301

27-10W-3DDD. OWNER UNKNOWN. DRILLED, UNUSED, WATER-TABLE INDUSTRIAL WELL NEAR SAND PIT IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS. DEPTH 170 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN SOUTHEAST CORNER OF PUMP BASE, 0.4 FOOT ABOVE LSD. MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 1743. FEET

RECORDS AVAILABLE 1966 TO CURRENT YEAR.

HIGHEST WATER LEVEL 49.63 FEET BELOW LAND SURFACE DATUM JUN 27, 1974.

LOWEST WATER LEVEL 56.99 FEET BELOW LAND SURFACE DATUM SEP 19, 1975.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 21, 1978 51.13 ; FEB 07, 1979 50.98 ; MAR 28, 1979 50.9 ; JUN 28, 1979 50.62 ;
SEP 18, 1979 51.39 .

WELL 28S 07W 29CDD 01 SITE NUMBER 373422098063301

28-7W-29CDD. LESLIE AND RALPH BROWN. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS. DEPTH 80 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN SOUTHEAST SIDE OF CASING, 0.5 FOOT ABOVE LSD. MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 1601. FEET

RECORDS AVAILABLE 1955 - 1956, 1964, 1969 TO CURRENT YEAR.

HIGHEST WATER LEVEL 26.61 FEET BELOW LAND SURFACE DATUM MAR 18, 1974.

LOWEST WATER LEVEL 30.2 FEET BELOW LAND SURFACE DATUM OCT 09, 1956.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 21, 1978 27.6 ; FEB 07, 1979 27.54 ; MAR 28, 1979 27.22 ; SEP 18, 1979 27.47 .

KINGMAN COUNTY -- CONTINUED

WELL 30S 05W 12CCA 01 SITE NUMBER 372659097491801

30-5W-12CAA. ROBERT LOWERY. DRILLED, WATER-TABLE IRRIGATION WELL IN SAND AND GRAVEL OF PLEISTOCENE AGE. DEPTH 63 FEET, DIAMETER 16 INCHES. MEASURING POINT, BASE OF PUMP, NORTH SIDE, 1.44 FEET ABOVE LSD. MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 1484. FEET

RECORDS AVAILABLE 1955, 1959 TO CURRENT YEAR.

HIGHEST WATER LEVEL 20.35 FEET BELOW LAND SURFACE DATUM JUN 24, 1975.

LOWEST WATER LEVEL 27.36 FEET BELOW LAND SURFACE DATUM JUN 23, 1972.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 21, 1978 22.73 ; MAR 28, 1979 22.34 ; JUN 28, 1979 22.62 .

KIOWA COUNTY

WELL 27S 17W 21ACC 01 SITE NUMBER 374054099110101

27-17W-21ACC. (19) C. WILLIAMSON. DRILLED, WATER-TABLE IRRIGATION WELL IN SAND AND GRAVEL OF PLEISTOCENE AGE. DIAMETER 18 INCHES, DEPTH 85 FEET, MEASURING POINT, LOWER EDGE OF PUMP BASE, 0.50 FOOT ABOVE LSD. G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 2140. FEET

RECORDS AVAILABLE 1941, 1944 TO CURRENT YEAR.

HIGHEST WATER LEVEL 24.35 FEET BELOW LAND SURFACE DATUM DEC 12, 1973.

LOWEST WATER LEVEL 38.98 FEET BELOW LAND SURFACE DATUM JUL 11, 1941.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 28, 1978 31.19 ; FEB 05, 1979 31.5 ; JUN 26, 1979 31.29 .

WELL 27S 18W 13AAA 01 SITE NUMBER 374201099135401

27-18W-13AAA. KANSAS GEOL. SURVEY. DRILLED, WATER-TABLE OBSERVATION WELL IN DEPOSITS OF PLEISTOCENE AGE. DEPTH 66 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 2.3 FEET ABOVE LSD.

ALTITUDE OF LAND SURFACE 2152. FEET

RECORDS AVAILABLE 1973 TO CURRENT YEAR.

HIGHEST WATER LEVEL 15.62 FEET BELOW LAND SURFACE DATUM MAY 09, 1974.

LOWEST WATER LEVEL 21.22 FEET BELOW LAND SURFACE DATUM MAR 21, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 28, 1978 20.74 ; FEB 05, 1979 18.88 ; APR 06, 1979 20.97 ; JUN 26, 1979 20.78 .

WELL 27S 18W 18DCD 01 SITE NUMBER 374117099193801

27-18W-18DCD. GILBERT YOHN. DUG AND DRILLED, WATER-TABLE IRRIGATION WELL. DEPTH 75 FEET, DIAMETER 16 INCHES. MEASURING POINT, TOP OF CONCRETE CURB, SOUTH SIDE, 1.0 FOOT ABOVE LSD. NEW WELL BORED IN 1961 AT SAME LOCATION. NEW WELL IS AN UNUSED OBSERVATION WELL IN PLEISTOCENE DEPOSITS. NEW DEPTH 40 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 2.9 FEET ABOVE LSD. G = MEASURED BY K.S.B.A.

RECORDS AVAILABLE 1940 TO CURRENT YEAR.

HIGHEST WATER LEVEL 10.30 FEET BELOW LAND SURFACE DATUM MAR 15, 1974.

LOWEST WATER LEVEL 26.62 FEET BELOW LAND SURFACE DATUM APR 28, 1941.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 28, 1978 15.72 ; FEB 05, 1979 15.74 ; APR 06, 1979 15.79 ; JUN 26, 1979 15.84 .

KIOWA COUNTY -- CONTINUED

WELL 27S 20W 26ADD 01 SITE NUMBER 374001099282201

27-20W-26ADD, GLENN BOWERS, DRILLED, WATER-TABLE IRRIGATION WELL IN DAKOTA FORMATION, DEPTH 95 FEET, DIAMETER 16 INCHES, MEASURING POINT, HOLE IN NORTHWEST CORNER OF PUMP BASE, 0.5 FOOT ABOVE LSD. MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 2274. FEET

RECORDS AVAILABLE 1969, 1971 TO CURRENT YEAR.

HIGHEST WATER LEVEL 39.19 FEET BELOW LAND SURFACE DATUM MAR 24, 1975.

LOWEST WATER LEVEL 44.79 FEET BELOW LAND SURFACE DATUM SEP 26, 1972.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 28, 1978 41.04 ; FEB 06, 1979 43.22 ; APR 06, 1979 40.52 ; JUN 26, 1979 42.67 .

WELL 28S 19W 10ADB 01 SITE NUMBER 373723099224501

28-19W-10ADB, PYLE-TAYLOR LAND CO. DRILLED, UNUSED, WATER-TABLE OBSERVATION WELL IN THE DAKOTA FORMATION. DEPTH 175 FEET, DIAMETER 4 INCHES. MEASURING POINT, 1.0 FOOT ABOVE LSD. MEASURED BY K.S.B.A.

RECORDS AVAILABLE 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 89.13 FEET BELOW LAND SURFACE DATUM JUL 05, 1977.

LOWEST WATER LEVEL 92.15 FEET BELOW LAND SURFACE DATUM SEP 22, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 28, 1978 90.84 ; APR 06, 1979 90.15 ; JUN 26, 1979 90.04 .

29-18W-2ACC. LAURENCE SCHWARM. DRILLED, UNUSED, WATER-TABLE OBSERVATION WELL IN THE DAKOTA FORMATION. DEPTH 188 FEET, DIAMETER 4 INCHES. MEASURING POINT, TOP OF CASING, 1.5 FEET ABOVE LSD. MEASURED BY K.S.B.A.

RECORDS AVAILABLE 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 143.16 FEET BELOW LAND SURFACE DATUM MAR 21, 1978.

LOWEST WATER LEVEL 145.44 FEET BELOW LAND SURFACE DATUM SEP 22, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 28, 1978 143.83 ; APR 06, 1979 143.35 ; JUN 26, 1979 143.24 .

LABETTE COUNTY

WELL 31S 21E 15CCC 02 SITE NUMBER 372026095060702

31-21E-15CCC2. K.G.S. DRILLED, WATER-TABLE OBSERVATION WELL. DEPTH 17 FEET, DIAMETER 6.5 INCHES. MEASURING POINT, TOP SOUTH SIDE OF CASING AT LAND SURFACE. MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 836.1 FEET

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 5.42 FEET BELOW LAND SURFACE DATUM MAR 20, 1973.

LOWEST WATER LEVEL 16.38 FEET BELOW LAND SURFACE DATUM SEP 25, 1968.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 04, 1978 16.24 ; MAR 05, 1979 11.7 ; JUN 06, 1979 12.40 ; SEP 12, 1979 15.34 .

LANE COUNTY

WELL 17S 28W 26ABB 01 SITE NUMBER 383314100225601

17-28W-26ABB. BEN HARTMAN. DRILLED, WATER-TABLE IRRIGATION WELL IN THE OGALLALA FORMATION. DEPTH 140 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN NORTH SIDE OF PUMP BASE, 0.3 FOOT ABOVE LSD. MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 2735. FEET

RECORDS AVAILABLE 1963 - 1967, 1969 TO CURRENT YEAR.

HIGHEST WATER LEVEL 85.63 FEET BELOW LAND SURFACE DATUM APR 07, 1964.

LOWEST WATER LEVEL 109.99 FEET BELOW LAND SURFACE DATUM JUN 28, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 29, 1979 100.37 ; MAR 06, 1979 101.06 ; JUN 28, 1979 109.99 ; SEP 06, 1979 102.94

WELL 17S 30W 13CBB 01 SITE NUMBER 383433100353601

17-30W-13CBB. F. L. BURMEISTER. DRILLED, WATER-TABLE WELL IN OGALLALA FORMATION. DEPTH 94 FEET, DIAMETER 6 INCHES. MEASURING POINT, TOP OF WEST SIDE OF CASING, 0.1 FOOT ABOVE LSD. G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 2846. FEET

RECORDS AVAILABLE 1948, 1950 TO CURRENT YEAR.

HIGHEST WATER LEVEL 80.55 FEET BELOW LAND SURFACE DATUM APR 07, 1964.

LOWEST WATER LEVEL 89.32 FEET BELOW LAND SURFACE DATUM SEP 06, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 30, 1979 87.6 ; MAR 06, 1979 87.94 ; JUN 28, 1979 89.13 ; SEP 06, 1979 89.32 .

WELL 18S 27W 13CCC 01 SITE NUMBER 382857100154501

18-27W-13CCC. C. M. MERRIWEATHER. DRILLED, UNUSED, WATER-TABLE WELL IN THE OGALLALA FORMATION. DEPTH 95 FEET, DIAMETER 6 INCHES. MEASURING POINT, TOP SOUTHEAST SIDE OF CASING, 0.6 FOOT ABOVE LSD. MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 2674. FEET

RECORDS AVAILABLE 1948, 1950 TO CURRENT YEAR.

HIGHEST WATER LEVEL 83.34 FEET BELOW LAND SURFACE DATUM DEC 09, 1969.

LOWEST WATER LEVEL 88.99 FEET BELOW LAND SURFACE DATUM SEP 19, 1958.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 29, 1979 86.6 ; JUN 28, 1979 86.34 .

WELL 18S 30W 02AAA 01 SITE NUMBER 383130100354301

18-30W-2AAA. ROBERT CRAMER. DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FORMATION. DEPTH 130 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN SOUTHWEST CORNER OF PUMP BASE, 0.5 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 2849.0 FEET

RECORDS AVAILABLE 1971 TO CURRENT YEAR.

HIGHEST WATER LEVEL 75.86 FEET BELOW LAND SURFACE DATUM MAR 05, 1973.

LOWEST WATER LEVEL 87.15 FEET BELOW LAND SURFACE DATUM MAR 06, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 29, 1979 84.16 ; MAR 06, 1979 83.22 .

MCPHERSON COUNTY

WELL 17S 03W 04BBB 01 SITE NUMBER 383630097395501

17-3W-4BBB. U.S.G.S. JETTED, WATER-TABLE OBSERVATION WELL IN TERRACE DEPOSITS OF PLEISTOCENE AGE. DEPTH 31.6 FEET, DIAMETER 0.75 INCH. MEASURING POINT, TOP OF PIPE, 3.5 FEET ABOVE LSD. MP CHANGED TO 3.1 FEET ABOVE LSD, DECEMBER 28, 1961.

ALTITUDE OF LAND SURFACE 1317.8 FEET

RECORDS AVAILABLE 1950 - 1953, 1955 TO CURRENT YEAR.

HIGHEST WATER LEVEL 9.43 FEET BELOW LAND SURFACE DATUM JUN 10, 1974.

LOWEST WATER LEVEL 28.25 FEET BELOW LAND SURFACE DATUM SEP 26, 1968.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 06, 1978 14.65 ; MAR 07, 1979 15.4 ; JUN 04, 1979 13.72 ; SEP 10, 1979 14.56 .

WELL 17S 03W 17DDD 01 SITE NUMBER 383400097400301

17-3W-17DDD. U.S.G.S. DRILLED, WATER-TABLE OBSERVATION WELL IN TERRACE DEPOSITS OF PLEISTOCENE AGE. DEPTH 37 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 0.8 FOOT ABOVE LSD. DESTROYED JUNE 1979.

ALTITUDE OF LAND SURFACE 1331.5 FEET

RECORDS AVAILABLE 1946 - 1953, 1955 - 1979.

HIGHEST WATER LEVEL 16.75 FEET BELOW LAND SURFACE DATUM JUL 24, 1951.

LOWEST WATER LEVEL 29.80 FEET BELOW LAND SURFACE DATUM SEP 07, 1956.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 06, 1978 25.36 ; MAR 07, 1979 25.3 .

WELL 17S 04W 34AAA 01 SITE NUMBER 383210097442801

17-4W-34AAA. U.S.G.S. DRILLED, WATER-TABLE OBSERVATION WELL IN TERRACE DEPOSITS OF PLEISTOCENE AGE. DIAMETER 1.25 INCHES, DEPTH 43 FEET. MEASURING POINT, TOP OF PIPE, 2.70 FEET ABOVE LSD. MEASURING POINT CHANGFD TO 3.0 FEET ABOVE LSD, MAY 16, 1972.

RECORDS AVAILABLE 1965 TO CURRENT YEAR.

HIGHEST WATER LEVEL 14.62 FEET BELOW LAND SURFACE DATUM JUN 10, 1974.

LOWEST WATER LEVEL 26.47 FEET BELOW LAND SURFACE DATUM SEP 26, 1968.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 06, 1978 23.95 ; MAR 07, 1979 22.96 ; JUN 04, 1979 20.28 ; SEP 10, 1979 22.90 .

WELL 17S 05W 07CBB 01 SITE NUMBER 383514097552401

17-5W-7CBB. U.S.G.S. JETTED, WATER-TABLE OBSERVATION WELL IN TERRACE DEPOSITS OF PLEISTOCENE AGE. DEPTH 30 FEET, DIAMETER 1.50 INCHES. MEASURING POINT, TOP OF PIPE, 2.0 FEET ABOVE LSD, REPLACEMENT WELL FOR 17-5W-7BBB.

ALTITUDE OF LAND SURFACE 1424. FEET

RECORDS AVAILABLE 1976 TO CURRENT YEAR.

HIGHEST WATER LEVEL 17.55 FEET BELOW LAND SURFACE DATUM JUN 02, 1976.

LOWEST WATER LEVEL 18.6 FEET BELOW LAND SURFACE DATUM DEC 06, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 06, 1978 18.6 ; MAR 07, 1979 18.5 ; JUN 04, 1979 18.10 ; SEP 10, 1979 18.16 .

MCPHERSON COUNTY -- CONTINUED

WELL 17S 05W 25AAA 01 SITE NUMBER 383302097405401

17-5W-25AAA. U.S.G.S. JETTED, WATER-TABLE OBSERVATION WELL IN TERRACE DEPOSITS OF PLEISTOCENE AGE. DEPTH 30 FEET, DAIMETER 0.75-INCH. MEASURING POINT, TOP OF PIPE, 4.0 FEET ABOVE LSD. MP CHANGED TO 1.6 FEET ABOVE LSD, JUNE 12, 1973.

ALTITUDE OF LAND SURFACE 1378.3 FEET

RECORDS AVAILABLE 1950 TO CURRENT YEAR.

HIGHEST WATER LEVEL 5.20 FEET BELOW LAND SURFACE DATUM JUN 10, 1974.

LOWEST WATER LEVEL 20.90 FEET BELOW LAND SURFACE DATUM OCT 23, 1950.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 06, 1978 12.43 ; MAR 07, 1979 12.22 ; JUN 04, 1979 11.32 ; SEP 10, 1979 10.45 .

MEADE COUNTY

WELL 30S 27W 22CDD 01 SITE NUMBER 372452100153801

30-27W-22CDD. D. ZORTMAN. DRILLED, UNUSED, WATER-TABLE WELL IN SAND AND GRAVEL OF PLEISTOCENE AGE. DIAMETER 8 INCHES, DEPTH 20 FEET. MEASURING POINT, TOP OF CASING, 3.00 ABOVE LSD. G = MEASURED BY K.S.B.A.

RECORDS AVAILABLE 1954 TO CURRENT YEAR.

HIGHEST WATER LEVEL 4.90 FEET BELOW LAND SURFACE DATUM MAR 19, 1974.

LOWEST WATER LEVEL 17.68 FEET BELOW LAND SURFACE DATUM SEP 21, 1960.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

FEB 01, 1979 8.1 ; MAR 05, 1979 9.08 ; JUN 14, 1979 7.11 ; SEP 05, 1979 7.06 .

WELL 30S 27W 32DDD 01 SITE NUMBER 372307100171401

30-27W-32DDD. MEADE COUNTY. DRIVEN AND BORED, WATER-TABLE OBSERVATION WELL IN PLIO-PLEIST SERIES. DEPTH 18 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP EAST SIDE OF PIPE, 2.0 FEET ABOVE LSD. G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 2475.0 FEET

RECORDS AVAILABLE 1953 TO CURRENT YEAR.

HIGHEST WATER LEVEL 7.02 FEET BELOW LAND SURFACE DATUM JAN 22, 1975.

LOWEST WATER LEVEL 15.41 FEET BELOW LAND SURFACE DATUM JUN 07, 1956.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

FEB 01, 1979 9.2 ; MAR 05, 1979 9.05 ; JUN 14, 1979 9.21 ; SEP 05, 1979 8.53 .

WELL 30S 30W 28ABB 01 SITE NUMBER 372454100361701

30-30W-28ABB. M. E. CHAPPELL. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 340 FEET, DIAMETER 16 INCHES. MEASURING POINT, CUT-OUT LOWER EDGE, EAST SIDE OF PUMP, 1.25 FEET ABOVE LSD.

ALTITUDE OF LAND SURFACE 2803. FEET

RECORDS AVAILABLE 1959, 1965 TO CURRENT YEAR.

HIGHEST WATER LEVEL 144.59 FEET BELOW LAND SURFACE DATUM JAN 06, 1959.

LOWEST WATER LEVEL 184.47 FEET BELOW LAND SURFACE DATUM FEB 02, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

FEB 02, 1979 184.47 ; MAR 29, 1979 171.83 ; JUN 14, 1979 177.39 ; SEP 05, 1979 177.06 .

MEADE COUNTY -- CONTINUED

WELL 32S 28W 04ADD 01 SITE NUMBER 371732100214701

32-28W-4ADD. (77) J. W. WOOD. DRILLED, WATER-TABLE DOMESTIC AND STOCK WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 199 FEET, DIAMETER 3 INCHES. MEASURING POINT, BOTTOM OF T IN 3-INCH CASING, 2.6 FEET ABOVE LSD. G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 2546. FEET

RECORDS AVAILABLE 1939 TO CURRENT YEAR.

HIGHEST WATER LEVEL 60.16 FEET BELOW LAND SURFACE DATUM MAR 19, 1952.

LOWEST WATER LEVEL 72.90 FEET BELOW LAND SURFACE DATUM SEP 05, 1975.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

SEP 04, 1979 70.21 .

WELL 33S 28W 29BCB 01 SITE NUMBER 370857100234601

33-28W-29BCB. FRED BURCHERS. DRILLED, WATER-TABLE IRRIGATION WELL IN THE OGALLALA FORMATION. DEPTH 160 FEET, DIAMETER 16 INCHES. MEASURING POINT, TOP NORTHEAST SIDE OF CASING, 1.0 FOOT ABOVE LSD. MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 2371.5 FEET

RECORDS AVAILABLE 1939 - 1944, 1953 TO CURRENT YEAR.

HIGHEST WATER LEVEL 13.10 FEET BELOW LAND SURFACE DATUM JUN 10, 1941.

LOWEST WATER LEVEL 19.99 FEET BELOW LAND SURFACE DATUM SEP 06, 1967.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

FEB 02, 1979 17.55 ; MAR 05, 1979 16.53 ; JUN 14, 1979 15.81 ; SEP 05, 1979 19.82 .

WELL 33S 30W 35CB 01 SITE NUMBER 370754100333501

33-30W-35CB. COLUMBIAN FUEL CORP. DRILLED, ARTESIAN INDUSTRIAL WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 420 FEET, DIAMETER 10 INCHES. MEASURING POINT, LOWER LIP OF 4-INCH COUPLING ON WEST SIDE, 0.70 FOOT ABOVE LSD. G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 2684. FEET

RECORDS AVAILABLE 1959, 1961 - 1968, 1970 TO CURRENT YEAR.

HIGHEST WATER LEVEL 157.18 FEET BELOW LAND SURFACE DATUM JUN 08, 1964.

LOWEST WATER LEVEL 165.89 FEET BELOW LAND SURFACE DATUM JUN 14, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

FEB 02, 1979 164.88 ; JUN 14, 1979 165.89 .

MORTON COUNTY

WELL 31S 39W 33BCC 01 SITE NUMBER 371833101341501

31-39W-33BCC. FRANK P. SHARMAN. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS, OGALLALA FORMATION AND UNDIFFERENTIATED MESOZOIC DEPOSITS. DEPTH 560 FEET, DIAMETER 16 INCHES. MEASURING POINT, LOWER EDGE SLANT PIPE, 1.0 FOOT ABOVE LSD. G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 3246. FEET

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 160.57 FEET BELOW LAND SURFACE DATUM JAN 18, 1967.

LOWEST WATER LEVEL 218.54 FEET BELOW LAND SURFACE DATUM SEP 12, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

FEB 01, 1979 207.2 ; MAR 20, 1979 206.05 ; JUN 12, 1979 204.09 ; SEP 12, 1979 218.54 .

MORTON COUNTY -- CONTINUED

WELL 31S 40W 29ABB 01 SITE NUMBER 371945101412701

31-40W-29ABB, CHAFFIN AND MORRELL, DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 215 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN WEST SIDE OF PUMP BASE, 1.05 FEET ABOVE LSD. G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 3331. FEET

RECORDS AVAILABLE 1959, 1962 - 1963, 1965 TO CURRENT YEAR.

HIGHEST WATER LEVEL 162.43 FEET BELOW LAND SURFACE DATUM MAR 02, 1959.

LOWEST WATER LEVEL 189.86 FEET BELOW LAND SURFACE DATUM SEP 11, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

FEB 01, 1979 179.62 ; MAR 05, 1979 180.48 ; JUN 12, 1979 181.14 ; SEP 12, 1979 184.93 .

WELL 31S 43W 14DDC 01 SITE NUMBER 372043101572701

31-43W-14DDC. (22) E. A. WILCOX, DRILLED, UNUSED, WATER-TABLE WELL IN THE LOWER CRETACEOUS SERIES. DEPTH 94 FEET, DIAMETER 5 INCHES. MEASURING POINT, TOP SOUTH SIDE OF CASING, 1.20 FEET ABOVE LSD. G = MEASURED BY K.S.B.A. MP CHANGED TO HOLE IN PLATE, NORTH SIDE, AT LAND SURFACE, JANUARY 1974.

ALTITUDE OF LAND SURFACE 3576. FEET

RECORDS AVAILABLE 1939 - 1953, 1956 TO CURRENT YEAR.

HIGHEST WATER LEVEL 65.63 FEET BELOW LAND SURFACE DATUM JAN 20, 1969.

LOWEST WATER LEVEL 78.29 FEET BELOW LAND SURFACE DATUM AUG 14, 1956.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

FEB 01, 1979 70.3 ; MAR 20, 1979 69.68 ; JUN 12, 1979 67.80 ; SEP 12, 1979 68.01 .

WELL 32S 42W 21BCC 01 SITE NUMBER 371505101535601

32-42W-21BCC. LEON AND HERBERT JACKSON, DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS, OGALLALA FORMATION AND UNDIFFERENTIATED MESOZOIC DEPOSITS. DEPTH 190 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN SOUTHWEST SIDE OF PUMP BASE, 0.5 FOOT ABOVE LSD. G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 3526. FEET

RECORDS AVAILABLE 1959 - 1967, 1969 TO CURRENT YEAR.

HIGHEST WATER LEVEL 83.62 FEET BELOW LAND SURFACE DATUM FEB 18, 1960.

LOWEST WATER LEVEL 155.56 FEET BELOW LAND SURFACE DATUM JUN 12, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

FEB 01, 1979 145.95 ; JUN 12, 1979 155.56 ; SEP 12, 1979 161.84 R.

WELL 33S 40W 27CCC 01 SITE NUMBER 370835101394701

33-40W-27CCC. RAY KALLENBACH, DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 316 FEET. MEASURING POINT, TOP OF CUT-OUT, NORTH SIDE OF PUMP, 0.6 FOOT ABOVE LSD. MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 3308. FEET

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 80.15 FEET BELOW LAND SURFACE DATUM JAN 18, 1967.

LOWEST WATER LEVEL 90.28 FEET BELOW LAND SURFACE DATUM DEC 04, 1974.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

FEB 01, 1979 82.05 ; MAR 20, 1979 81.11 ; JUN 12, 1979 80.82 ; SEP 12, 1979 85.54 .

MORTON COUNTY -- CONTINUED

WELL 33S 41W 03AAD 01 SITE NUMBER 371242101452201

33-41W-3AAD. WARREN BOWKER. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 305 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE UNDER SOUTH SIDE OF PUMP BASE, 0.8 FOOT ABOVE LSD. 6 = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 3308. FEET

RECORDS AVAILABLE 1959, 1965 TO CURRENT YEAR.

HIGHEST WATER LEVEL 111.20 FEET BELOW LAND SURFACE DATUM MAR 20, 1959.

LOWEST WATER LEVEL 164.77 FEET BELOW LAND SURFACE DATUM JUN 16, 1971.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

FEB 02, 1979 156.2 ; MAR 20, 1979 149.25 ; JUN 12, 1979 144.99 ; SEP 12, 1979 154.99 .

WELL 35S 40W 03BBB 01 SITE NUMBER 370224101394601

35-40W-3BBB. W. D. HERSHEY. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 365 FEET, DIAMETER 16 INCHES. MEASURING POINT, LOWER EDGE OF PUMP BASE, 0.7 FOOT ABOVE LSD. MEASURED BY K.S.B.A. MP CHANGED TO TOP OF CASING, AT LAND SURFACE, MARCH 20,1979.

ALTITUDE OF LAND SURFACE 3367. FEET

RECORDS AVAILABLE 1959, 1962 - 1963, 1965 TO CURRENT YEAR.

HIGHEST WATER LEVEL 172.52 FEET BELOW LAND SURFACE DATUM JUN 09, 1976.

LOWEST WATER LEVEL 183.75 FEET BELOW LAND SURFACE DATUM JAN 19, 1971.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

FEB 02, 1979 175.26 ; MAR 20, 1979 178.08 ; JUN 12, 1979 174.67 ; SEP 12, 1979 176.85 .

NEOSHO COUNTY

WELL 27S 18E 23BCC 01 SITE NUMBER 374100095244801

27-18E-23BCC. U.S.G.S. BORED, WATER-TABLE OBSERVATION WELL. DEPTH 22 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 3.5 FEET ABOVE LSD. MEASURED BY K.S.B.A. DESTROYED MAY 1979.

ALTITUDE OF LAND SURFACE 910.9 FEET

RECORDS AVAILABLE 1960, 1964 - 1965, 1967 - 1978.

HIGHEST WATER LEVEL 7.53 FEET BELOW LAND SURFACE DATUM MAR 20, 1973.

LOWEST WATER LEVEL 18.15 FEET BELOW LAND SURFACE DATUM SEP 22, 1970.

WATER LEVELS WERE NOT MEASURED IN THIS WELL BETWEEN 10/01/1978 AND 09/30/1979

NESS COUNTY

WELL 18S 21W 31CAA 01 SITE NUMBER 382632099411501

18-21W-31CAA. GEORGE DIEMER. DRILLED, UNUSED WATER-TABLE OBSERVATION WELL IN PLEISTOCENE AND FLUVIAL DEPOSITS. DEPTH 44 FEET, DIAMETER 5 INCHES. MEASURING POINT, TOP OF CASING, 0.3 FOOT ABOVE LSD. REPLACEMENT WELL FOR 18-21W-31BCB.

ALTITUDE OF LAND SURFACE 2122. FEET

RECORDS AVAILABLE 1971 TO CURRENT YEAR.

HIGHEST WATER LEVEL 30.69 FEET BELOW LAND SURFACE DATUM MAR 19, 1974.

LOWEST WATER LEVEL 34.55 FEET BELOW LAND SURFACE DATUM OCT 04, 1971.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 27, 1978 32.43 ; MAR 29, 1979 31.97 ; JUN 19, 1979 32.34 ; SEP 19, 1979 32.56 .

NESS COUNTY -- CONTINUED

WELL 19S 23W 01CCB 01 SITE NUMBER 382526099492301

19-23W-1CCB. JAMES R. CLOUSTON. DRILLED, ARTESIAN IRRIGATION WELL IN THE DAKOTA FORMATION. DEPTH 450 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN NORTHWEST SIDE OF PUMP BASE, 0.4 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 2214. FEET

RECORDS AVAILABLE 1971 TO CURRENT YEAR.

HIGHEST WATER LEVEL 75.50 FEET BELOW LAND SURFACE DATUM MAY 12, 1971.

LOWEST WATER LEVEL 87.4 FEET BELOW LAND SURFACE DATUM DEC 27, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 27, 1978 87.4 ; JAN 02, 1979 87.39 .

WELL 19S 23W 08CBB 01 SITE NUMBER 382447099534801

19-23W-8CBB. ROBERT SCHNEIPP. DRILLED, WATER-TABLE OBSERVATION WELL IN TERRACE DEPOSITS OF PLEISTOCENE AGE. DIAMETER 1.25 INCHES, DEPTH 52 FEET. MEASURING POINT, TOP OF PIPE, 3.2 FEET ABOVE LSD. G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 2220. FEET

RECORDS AVAILABLE 1965 TO CURRENT YEAR.

HIGHEST WATER LEVEL 18.59 FEET BELOW LAND SURFACE DATUM JUL 27, 1967.

LOWEST WATER LEVEL 29.97 FEET BELOW LAND SURFACE DATUM MAY 23, 1969.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 27, 1978 22.44 ; MAR 29, 1979 21.32 ; JUN 19, 1979 21.21 ; SEP 19, 1979 21.04 .

WELL 20S 22W 20CCC 01 SITE NUMBER 381728099470701

20-22W-20CCC. (2) C. L. WHITLEY. DUG AND DRILLED, WATER-TABLE IRRIGATION WELL IN TERRACE DEPOSITS OF PLEISTOCENE AGE. DEPTH 51 FEET, DIAMETER 20 INCHES. MEASURING POINT, TOP OF SOUTH SIDE OF CONCRETE CURB, 0.5 FOOT ABOVE LSD. MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 2189. FEET

RECORDS AVAILABLE 1940 TO CURRENT YEAR.

HIGHEST WATER LEVEL 17.81 FEET BELOW LAND SURFACE DATUM JUL 12, 1951.

LOWEST WATER LEVEL 42.66 FEET BELOW LAND SURFACE DATUM SEP 19, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 27, 1978 40.97 ; MAR 29, 1979 40.57 ; JUN 19, 1979 41.20 ; SEP 19, 1979 42.66 .

WELL 20S 23W 32CDA 01 SITE NUMBER 381550099532001

20-23W-32CDA. (1) J. E. FICKEN. DRILLED, WATER-TABLE IRRIGATION WELL IN TERRACE DEPOSITS OF PLEISTOCENE AGE. DIAMETER 19 INCHES, DEPTH 67 FEET. MEASURING POINT, TOP EAST SIDE OF SILL UNDER PUMP, 2.00 FEET ABOVE LSD. G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 2233. FEET

RECORDS AVAILABLE 1940 TO CURRENT YEAR.

HIGHEST WATER LEVEL 25.58 FEET BELOW LAND SURFACE DATUM OCT 24, 1951.

LOWEST WATER LEVEL 41.50 FEET BELOW LAND SURFACE DATUM MAY 25, 1967.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 27, 1978 38.08 ; MAR 29, 1979 38.24 ; JUN 19, 1979 37.90 ; SEP 19, 1979 35.82 .

PAWNEE COUNTY

WELL 21S 18W 32DAA 01 SITE NUMBER 381047099185301

21-18W-32DAA. SANFORD CO-OP. DRILLED, UNUSED WATER-TABLE DOMESTIC WELL IN ALLUVIUM. DIAMETER 5 INCHES, DEPTH 73 FEET. MEASURING POINT, HIGHEST PART OF CASING ON NORTHEAST SIDE, 0.80 FOOT ABOVE LSD. G = MEASURED BY K.S.B.A.

RECORDS AVAILABLE 1963 TO CURRENT YEAR.

HIGHEST WATER LEVEL 15.88 FEET BELOW LAND SURFACE DATUM MAR 20, 1974.

LOWEST WATER LEVEL 30.65 FEET BELOW LAND SURFACE DATUM FEB 06, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 27, 1978 30.58 G FEB 06, 1979 30.65 G MAR 29, 1979 30.16 G JUN 19, 1979 30.10 G

SEP 19, 1979 28.39 .

WELL 21S 19W 30BCC 01 SITE NUMBER 381147099272701

21-19W-30BCC. U.S.G.S. DRILLED, WATER-TABLE OBSERVATION WELL IN TERRACE DEPOSITS OF PLEISTOCENE AGE. DIAMETER 1.25 INCHES, DEPTH 69 FEET. MEASURING POINT, TOP OF PIPE, 3.6 FEET ABOVE LSD. G = MEASURED BY K.S.B.A.

RECORDS AVAILABLE 1965 TO CURRENT YEAR.

HIGHEST WATER LEVEL 31.87 FEET BELOW LAND SURFACE DATUM MAR 20, 1974.

LOWEST WATER LEVEL 44.97 FEET BELOW LAND SURFACE DATUM SEP 21, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 27, 1978 44.46 G FEB 06, 1979 44.26 G MAR 29, 1979 43.83 G JUN 19, 1979 43.63 G

SEP 19, 1979 43.65 .

WELL 21S 20W 29BBB 01 SITE NUMBER 381207099325201

21-20W-29BBB. E. R. MUSIL. DRILLED, UNUSED, WATER-TABLE IRRIGATION WELL IN TERRACE DEPOSITS OF PLEISTOCENE AGE. DIAMETER 16 INCHES, DEPTH 117 FEET. MEASURING POINT, TOP OF CONCRETE, 0.73 FOOT ABOVE LSD. G = MEASURED BY K.S.B.A.

RECORDS AVAILABLE 1965 TO CURRENT YEAR.

HIGHEST WATER LEVEL 31.85 FEET BELOW LAND SURFACE DATUM MAR 16, 1966.

LOWEST WATER LEVEL 46.02 FEET BELOW LAND SURFACE DATUM SEP 21, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 27, 1978 45.37 G FEB 06, 1979 44.7 G MAR 29, 1979 43.98 G JUN 19, 1979 44.46 G

SEP 19, 1979 45.42 .

WELL 22S 15W 03AAA 01 SITE NUMBER 381022098570001

22-15W-3AAA. KANSAS GEOL. SURVEY. DRILLED, WATER-TABLE OBSERVATION WELL IN DEPOSITS OF PLEISTOCENE AGE. DEPTH 51 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 0.9 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 1970. FEET

RECORDS AVAILABLE 1973 TO CURRENT YEAR.

HIGHEST WATER LEVEL 14.84 FEET BELOW LAND SURFACE DATUM DEC 18, 1973.

LOWEST WATER LEVEL 23.51 FEET BELOW LAND SURFACE DATUM SEP 19, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 27, 1978 22.67 G MAR 29, 1979 22.77 G JUN 19, 1979 23.05 G SEP 19, 1979 23.51 .

PAWNEE COUNTY -- CONTINUED

WELL 22S 15W 03AAA 02 SITE NUMBER 381022098570002

22-15W-3AAA2. KANSAS GEOL. SURVEY. DRILLED, WATER-TABLE OBSERVATION WELL IN DEPOSITS OF PLEISTOCENE AGE. DEPTH 196 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 0.76 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 1970. FEET

RECORDS AVAILABLE 1973 TO CURRENT YEAR.

HIGHEST WATER LEVEL 15.47 FEET BELOW LAND SURFACE DATUM OCT 30, 1973.

LOWEST WATER LEVEL 39.34 FEET BELOW LAND SURFACE DATUM SEP 19, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 27, 1978 24.66 ; FEB 06, 1979 24.15 ; MAR 29, 1979 24.49 ; JUN 19, 1979 24.97 ;

SEP 19, 1979 39.34 .

WELL 22S 16W 06BBA 01 SITE NUMBER 381021099074601

22-16W-6BBA. (6A) FRED B. REED. BORED, WATER-TABLE OBSERVATION WELL IN ALLUVIUM. DIAMETER 1.25 INCHES, DEPTH 30 FEET. MEASURING POINT, TOP OF PIPE, 4.70 FEET ABOVE LSD. G = MEASURED BY K.S.B.A.

RECORDS AVAILABLE 1961 TO CURRENT YEAR.

HIGHEST WATER LEVEL 14.60 FEET BELOW LAND SURFACE DATUM DEC 20, 1973.

LOWEST WATER LEVEL 18.61 FEET BELOW LAND SURFACE DATUM SEP 21, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 27, 1978 18.2 ; FEB 06, 1979 18.08 ; MAR 29, 1979 17.86 ; JUN 19, 1979 17.87 ;

SEP 19, 1979 16.63 .

WELL 22S 16W 23AAA 01 SITE NUMBER 380744099023201

22-16W-23AAA. EDGAR CLARK. DRILLED, WATER-TABLE IRRIGATION WELL IN DEPOSITS OF PLEISTOCENE AGE. DEPTH 60 FEET, DIAMETER 19 INCHES. MEASURING POINT, HOLE IN PUMP BASE, 0.2 FOOT ABOVE LSD. MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 2011. FEET

RECORDS AVAILABLE 1970 TO CURRENT YEAR.

HIGHEST WATER LEVEL 21.19 FEET BELOW LAND SURFACE DATUM JUN 25, 1974.

LOWEST WATER LEVEL 32.38 FEET BELOW LAND SURFACE DATUM JUN 19, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 27, 1978 31.42 ; FEB 06, 1979 30.63 ; MAR 29, 1979 29.95 ; JUN 19, 1979 32.38 ;

SEP 19, 1979 31.37 .

WELL 22S 17W 18AAD 01 SITE NUMBER 380830099133401

22-17W-18AAD. (7A) RALPH LUPFER. DRILLED, WATER-TABLE IRRIGATION WELL IN TERRACE DEPOSITS OF PLEISTOCENE AGE. DIAMETER 16 INCHES, DEPTH 122 FEET. MEASURING POINT, TOP OF 1.25 INCH PIPE, 1.00 FOOT ABOVE LSD. G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 2047. FEET

RECORDS AVAILABLE 1964 TO CURRENT YEAR.

HIGHEST WATER LEVEL 24.88 FEET BELOW LAND SURFACE DATUM MAR 20, 1974.

LOWEST WATER LEVEL 42.80 FEET BELOW LAND SURFACE DATUM JUN 19, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 27, 1978 37.91 ; FEB 06, 1979 37.19 ; MAR 29, 1979 36.28 ; JUN 19, 1979 42.80 ;

SEP 19, 1979 42.22 .

PAWNEE COUNTY -- CONTINUED

WELL 22S 19W 07AAA 01 SITE NUMBER 380930099263001

22-19W-7AAA, RAYMOND POLSON, DRILLED, WATER-TABLE OBSERVATION WELL IN THE DAKOTA SANDSTONE. DEPTH 165 FEET, DIAMETER 1.50 INCHES, MEASURING POINT, TOP OF PIPE, 2.0 FEET ABOVE LSD. MEASURED BY K.S.B.A.

RECORDS AVAILABLE 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 52.62 FEET BELOW LAND SURFACE DATUM MAR 17, 1978.

LOWEST WATER LEVEL 90.59 FEET BELOW LAND SURFACE DATUM SEP 21, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 27, 1978 62.98 ; MAR 29, 1979 55.03 ; JUN 19, 1979 71.23 .

WELL 22S 19W 10BBA 01 SITE NUMBER 380929099240301

22-19W-10BBA, DALE R. JOSEFIAK, DRILLED, WATER-TABLE IRRIGATION WELL IN DAKOTA SANDSTONE. DEPTH 130 FEET, DIAMETER 16 INCHES, MEASURING POINT, EAST SIDE OF PUMP, 0.2 FOOT ABOVE LSD. MEASURED BY K.S.B.A.

RECORDS AVAILABLE 1978 TO CURRENT YEAR.

HIGHEST WATER LEVEL 52.20 FEET BELOW LAND SURFACE DATUM MAR 29, 1979.

LOWEST WATER LEVEL 66.53 FEET BELOW LAND SURFACE DATUM SEP 21, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 27, 1978 56.28 ; MAR 29, 1979 52.20 ; JUN 19, 1979 56.98 ; SEP 19, 1979 63.86 .

WELL 22S 19W 10BBB 01 SITE NUMBER 380929099241101

22-19W-10BBB, DALE R. JOSEFIAK, DRILLED, ARTESIAN IRRIGATION WELL IN ALLUVIUM. DEPTH 130 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN EAST SIDE OF PUMP BASE, 0.6 FOOT ABOVE LSD. MEASURED BY K.S.B.A. DISCONTINUED 1979.

ALTITUDE OF LAND SURFACE 2087. FEET

RECORDS AVAILABLE 1971 TO CURRENT YEAR.

HIGHEST WATER LEVEL 34.36 FEET BELOW LAND SURFACE DATUM MAR 20, 1974.

LOWEST WATER LEVEL 53.68 FEET BELOW LAND SURFACE DATUM FEB 06, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

FEB 06, 1979 53.68 .

WELL 23S 16W 35CCD 01 SITE NUMBER 375958099032001

23-16W-35CCD, WILLIAM J. SCHARTZ, DRILLED, ABANDONED WATER-TABLE STOCK WELL. DEPTH 50 FEET, DIAMETER 5 INCHES, MEASURING POINT, TOP OF CASING, 0.9 FOOT ABOVE LSD. MP CHANGED TO LAND SURFACE, DECEMBER 1976. DESTROYED SEPTEMBER 1979.

RECORDS AVAILABLE 1972 TO CURRENT YEAR.

HIGHEST WATER LEVEL 11.97 FEET BELOW LAND SURFACE DATUM MAR 20, 1974.

LOWEST WATER LEVEL 21.30 FEET BELOW LAND SURFACE DATUM JUN 19, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 27, 1978 20.67 ; MAR 29, 1979 20.35 ; JUN 19, 1979 21.30 .

WELL 23S 18W 28DAD 01 SITE NUMBER 380105099174801

23-18W-28DAD, KANSAS GEOL. SURVEY. DRILLED, WATER-TABLE OBSERVATION WELL IN DEPOSITS OF PLEISTOCENE AGE. DEPTH 50 FEET, DIAMETER 1.25 INCHES, MEASURING POINT, TOP OF PIPE, 2.0 FEET ABOVE LSD.

ALTITUDE OF LAND SURFACE 2102. FEET

RECORDS AVAILABLE 1973, 1975 TO CURRENT YEAR.

HIGHEST WATER LEVEL 6.32 FEET BELOW LAND SURFACE DATUM NOV 01, 1973.

LOWEST WATER LEVEL 17.64 FEET BELOW LAND SURFACE DATUM APR 17, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

APR 17, 1979 17.64 ; JUN 27, 1979 9.68 ; SEP 21, 1979 9.61 .

PRATT COUNTY

WELL 26S 12W 34CDC 01 SITE NUMBER 374403098372301

26-12W-34CDC. KANSAS GEOLOGICAL SURVEY. DRILLED, UNUSED, WATER-TABLE OBSERVATION WELL IN SAND AND GRAVEL OF PLEISTOCENE AGE. DEPTH 210 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 1.5 FEET ABOVE LSD.

ALTITUDE OF LAND SURFACE 1884. FEET

RECORDS AVAILABLE 1964, 1973 TO CURRENT YEAR.

HIGHEST WATER LEVEL 43.16 FEET BELOW LAND SURFACE DATUM DEC 17, 1974.

LOWEST WATER LEVEL 47.89 FEET BELOW LAND SURFACE DATUM SEP 22, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 28, 1978 47.23 ; FEB 06, 1979 47.28 ; APR 06, 1979 46.83 ; JUN 26, 1979 46.10 .

WELL 26S 12W 34CDC 02 SITE NUMBER 374403098372302

26-12W-34CDC2. KANSAS GEOLOGICAL SURVEY. DRILLED, UNUSED, WATER-TABLE OBSERVATION WELL IN SAND AND GRAVEL OF PLEISTOCENE AGE. DEPTH 145 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 1.7 FEET ABOVE LSD.

ALTITUDE OF LAND SURFACE 1884. FEET

RECORDS AVAILABLE 1964, 1973 TO CURRENT YEAR.

HIGHEST WATER LEVEL 41.06 FEET BELOW LAND SURFACE DATUM DEC 14, 1973.

LOWEST WATER LEVEL 46.58 FEET BELOW LAND SURFACE DATUM SEP 22, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 28, 1978 45.66 ; APR 06, 1979 45.2 ; JUN 26, 1979 44.37 .

WELL 26S 13W 34BCB 01 SITE NUMBER 374438098441601

26-13W-34BCB. GEORGE SOAKEN. DRILLED, UNUSED, INDUSTRIAL WELL IN SAND AND GRAVEL OF PLEISTOCENE AGE. DEPTH 75 FEET, DIAMETER 6 INCHES. MEASURING POINT, TOP OF CASING, 0.7 FOOT ABOVE LSD. MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 1950. FEET

RECORDS AVAILABLE 1959 TO CURRENT YEAR.

HIGHEST WATER LEVEL 41.63 FEET BELOW LAND SURFACE DATUM JUL 18, 1960.

LOWEST WATER LEVEL 52.01 FEET BELOW LAND SURFACE DATUM SEP 21, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 28, 1978 50.39 ; FEB 06, 1979 50.21 ; APR 06, 1979 49.83 ; JUN 25, 1979 50.03 ;
SEP 21, 1979 52.01 .

WELL 26S 14W 17DCB 01 SITE NUMBER 374648098522901

26-14W-17DCB. DEAN E. HEMPHILL. DRILLED, WATER-TABLE IRRIGATION WELL IN CRETE AND GRAND ISLAND FORMATIONS. DEPTH 100 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN EAST SIDE OF PUMP BASE, 1.0 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 2010. FEET

RECORDS AVAILABLE 1960, 1962 - 1963, 1965 TO CURRENT YEAR.

HIGHEST WATER LEVEL 12.0 FEET BELOW LAND SURFACE DATUM MAY 11, 1960.

LOWEST WATER LEVEL 23.9 FEET BELOW LAND SURFACE DATUM SEP 22, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 28, 1978 23.29 ; MAR 27, 1979 21.72 ; APR 06, 1979 21.4 ; JUN 25, 1979 20.65 ;
SEP 21, 1979 23.20 .

PRATT COUNTY -- CONTINUED

WELL 27S 14W 12DDD 01 SITE NUMBER 374217098474101

27-14W-12DDD. KANSAS GEOLOGICAL SURVEY. DRILLED, UNUSED, WATER-TABLE OBSERVATION WELL IN DEPOSITS OF PLEISTOCENE AGE. DEPTH 158 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 2.5 FEET ABOVE LSD.

ALTITUDE OF LAND SURFACE 1963. FEET

RECORDS AVAILABLE 1974 TO CURRENT YEAR.

HIGHEST WATER LEVEL 56.04 FEET BELOW LAND SURFACE DATUM JUN 23, 1975.

LOWEST WATER LEVEL 61.15 FEET BELOW LAND SURFACE DATUM SEP 21, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 28, 1978 59.17 ; FEB 05, 1979 59.19 ; APR 06, 1979 59.04 ; JUN 25, 1979 59.44 ;
SEP 21, 1979 61.15 .

WELL 29S 13W 13AAA 01 SITE NUMBER 373140098410701

29-13W-13AAA. E. R. KESSLER. DRILLED, UNUSED IRRIGATION WELL IN SAND AND GRAVEL OF PLEISTOCENE AGE. DIAMETER 10 INCHES, DEPTH 119 FEET. MEASURING POINT, TOP SOUTH SIDE OF CONCRETE PLATFORM, 0.40 FOOT ABOVE LSD. G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 1917. FEET

RECORDS AVAILABLE 1951 TO CURRENT YEAR.

HIGHEST WATER LEVEL 87.65 FEET BELOW LAND SURFACE DATUM JUN 29, 1953.

LOWEST WATER LEVEL 92.25 FEET BELOW LAND SURFACE DATUM DEC 15, 1954.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 28, 1978 89.33 ; FEB 07, 1979 89.46 ; APR 06, 1979 89.63 ; JUN 26, 1979 89.60 .

RENO COUNTY

WELL 22S 06W 33BAB 01 SITE NUMBER 380601097592501

22-6W-33BAB. CITY OF WILLOWBROOK. DRILLED, WATER-TABLE IRRIGATION WELL IN TERRACE DEPOSITS OF PLEISTOCENE AGE. DIAMETER 12 INCHES, DEPTH 44 FEET. MEASURING POINT, NORTH EDGE OF CASING, 0.75 FOOT ABOVE LSD. G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 1555. FEET

RECORDS AVAILABLE 1960 TO CURRENT YEAR.

HIGHEST WATER LEVEL 4.23 FEET BELOW LAND SURFACE DATUM OCT 05, 1973.

LOWEST WATER LEVEL 11.58 FEET BELOW LAND SURFACE DATUM SEP 19, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 20, 1978 11.23 ; MAR 27, 1979 9.33 ; JUN 18, 1979 10.85 ; SEP 13, 1979 11.47 .

WELL 23S 06W 31DCB 01 SITE NUMBER 380008098011901

23-6W-31DCB. BILL M. CLARK. DRILLED, WATER-TABLE IRRIGATION WELL IN DEPOSITS OF PLEISTOCENE AGE. DEPTH 95 FEET, DIAMETER 18 INCHES. MEASURING POINT, HOLE IN WEST SIDE OF PUMP BASE, 0.2 FOOT ABOVE LSD. MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 1577. FEET

RECORDS AVAILABLE 1971 TO CURRENT YEAR.

HIGHEST WATER LEVEL 31.37 FEET BELOW LAND SURFACE DATUM JUN 19, 1975.

LOWEST WATER LEVEL 33.53 FEET BELOW LAND SURFACE DATUM SEP 22, 1971.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 20, 1978 31.83 ; FEB 06, 1979 31.7 ; MAR 27, 1979 31.62 ; JUN 18, 1979 31.57 ;
SEP 13, 1979 33.23 .

RENO COUNTY -- CONTINUED

WELL 23S 09W 35CCC 01 SITE NUMBER 380000098171701

23-9W-35CCC. KANSAS GEOLOGICAL SURVEY. DRILLED, UNUSED, WATER-TABLE OBSERVATION WELL IN DEPOSITS OF PLEISTOCENE AGE. DEPTH 82 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 1.0 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 1718. FEET

RECORDS AVAILABLE 1974 TO CURRENT YEAR.

HIGHEST WATER LEVEL 13.65 FEET BELOW LAND SURFACE DATUM APR 10, 1974.

LOWEST WATER LEVEL 25.63 FEET BELOW LAND SURFACE DATUM MAR 21, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 20, 1978 20.64 ; FEB 06, 1979 21.17 ; MAR 27, 1979 16.1 ; JUN 18, 1979 15.35 ;

SEP 13, 1979 17.40 .

WELL 26S 10W 18CDC 01 SITE NUMBER 374637098272501

26-10W-18CDC. KANSAS GEOLOGICAL SURVEY. DRILLED, UNUSED, WATER-TABLE OBSERVATION WELL IN DEPOSITS OF PLEISTOCENE AGE. DEPTH 64 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 2.5 FEET ABOVE LSD.

ALTITUDE OF LAND SURFACE 1797. FEET

RECORDS AVAILABLE 1973 TO CURRENT YEAR.

HIGHEST WATER LEVEL 23.48 FEET BELOW LAND SURFACE DATUM DEC 11, 1974.

LOWEST WATER LEVEL 25.29 FEET BELOW LAND SURFACE DATUM JUN 13, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 21, 1978 24.48 ; FEB 05, 1979 24.69 ; MAR 28, 1979 24.84 ; JUN 28, 1979 24.20 ;

SEP 18, 1979 24.20 .

RICE COUNTY

WELL 18S 09W 04BCC 01 SITE NUMBER 383058098194601

18-9W-4BCC. NORTHERN GAS PRODUCTS. DRILLED, WATER-TABLE OBSERVATION WELL. DEPTH 194 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 2.65 FEET ABOVE LSD. MEASURED BY K.S.B.A.

RECORDS AVAILABLE 1966 TO CURRENT YEAR.

HIGHEST WATER LEVEL 50.47 FEET BELOW LAND SURFACE DATUM SEP 22, 1972.

LOWEST WATER LEVEL 92.05 FEET BELOW LAND SURFACE DATUM SEP 13, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 20, 1978 63.55 ; MAR 27, 1979 60.67 ; JUN 18, 1979 65.82 ; SEP 13, 1979 92.05 .

WELL 18S 09W 04BCC 02 SITE NUMBER 383058098194602

18-9W-4BCC2. NORTHERN GAS PRODUCTS. DRILLED, WATER-TABLE OBSERVATION WELL. DEPTH 97 FEET, DIAMETER 2 INCHES. MEASURING POINT, TOP OF PIPE, 2.5 FEET ABOVE LSD. MEASURED BY K.S.B.A.

RECORDS AVAILABLE 1966 TO CURRENT YEAR.

HIGHEST WATER LEVEL 49.17 FEET BELOW LAND SURFACE DATUM OCT 27, 1966.

LOWEST WATER LEVEL 65.49 FEET BELOW LAND SURFACE DATUM SEP 13, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 20, 1978 57.14 ; MAR 27, 1979 54.89 ; JUN 18, 1979 56.00 ; SEP 13, 1979 65.49 .

RICE COUNTY -- CONTINUED

WELL 18S 10W 24BBB 01 SITE NUMBER 382840098230601

18-10W-24BBB. F. W. ROELF, DRILLED, WATER-TABLE STUCK WELL. DEPTH 144 FEET, DIAMETER 6 INCHES. MEASURING POINT, HOLE IN SOUTH SIDE OF PUMP BASE, 0.4 FOOT ABOVE LSD. MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 1755. FEET

RECORDS AVAILABLE 1945, 1966 TO CURRENT YEAR.

HIGHEST WATER LEVEL 31.89 FEET BELOW LAND SURFACE DATUM JUL 05, 1945.

LOWEST WATER LEVEL 40.05 FEET BELOW LAND SURFACE DATUM SEP 25, 1968.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 20, 1978 37.32 ; MAR 27, 1979 36.72 ; JUN 18, 1979 37.38 ; SEP 13, 1979 39.73 .

WELL 20S 09W 12DDA 01 SITE NUMBER 381918098152601

20-9W-12DDA. DAVID C. GRIFFIN. DRIVEN, WATER-TABLE DOMESTIC WELL IN ALLUVIUM. DEPTH 32 FEET, DIAMETER 1.50 INCHES. MEASURING POINT, TOP OF PIPE, 0.6 FOOT ABOVE LSD. MEASURED BY K.S.B.A.

RECORDS AVAILABLE 1960 TO CURRENT YEAR.

HIGHEST WATER LEVEL 7.05 FEET BELOW LAND SURFACE DATUM OCT 05, 1973.

LOWEST WATER LEVEL 15.17 FEET BELOW LAND SURFACE DATUM SEP 25, 1968.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 20, 1978 13.12 ; MAR 27, 1979 11.11 ; JUN 18, 1979 12.35 ; SEP 13, 1979 14.43 .

SCOTT COUNTY .

WELL 16S 33W 19CBB 01 SITE NUMBER 383856101005901

16-33W-19CBB. ROY FAIRLEIGH. DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FORMATION. DEPTH 192 FEET, DIAMETER 18 INCHES. MEASURING POINT, HOLE IN WEST SIDE OF PUMP BASE, 0.75 FOOT ABOVE LSD. MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 3097. FEET

RECORDS AVAILABLE 1959 TO CURRENT YEAR.

HIGHEST WATER LEVEL 129.78 FEET BELOW LAND SURFACE DATUM DEC 12, 1960.

LOWEST WATER LEVEL 169.31 FEET BELOW LAND SURFACE DATUM DEC 10, 1974.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 30, 1979 159.45 ; MAR 14, 1979 158.74 ; JUN 19, 1979 158.58 .

WELL 17S 32W 27BBB 01 SITE NUMBER 383316100505801

17-32W-27BBB. O. C. BEBERMEYER. DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FORMATION. DEPTH 185 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE NORTH SIDE PUMP BASE AT LAND SURFACE. MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 2990. FEET

RECORDS AVAILABLE 1965 TO CURRENT YEAR.

HIGHEST WATER LEVEL 106.25 FEET BELOW LAND SURFACE DATUM APR 25, 1966.

LOWEST WATER LEVEL 139.89 FEET BELOW LAND SURFACE DATUM SEP 05, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 31, 1979 128.1 ; MAR 06, 1979 133.05 ; JUN 28, 1979 135.39 ; SEP 06, 1979 143.71 R.

SCOTT COUNTY -- CONTINUED

WELL 17S 34W 06BCB 01 SITE NUMBER 383633101073401

17-34W-6BCB. E. C. THOREN. DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FORMATION. DEPTH 194 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN WEST SIDE OF PUMP BASE, 0.75 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 3163. FEET

RECORDS AVAILABLE 1965 TO CURRENT YEAR.

HIGHEST WATER LEVEL 118.55 FEET BELOW LAND SURFACE DATUM MAR 29, 1966.

LOWEST WATER LEVEL 144.39 FEET BELOW LAND SURFACE DATUM SEP 13, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 30, 1979 143.45 ; MAR 14, 1979 138.29 ; JUN 19, 1979 142.77 ; SEP 10, 1979 143.56 .

WELL 18S 32W 17ABA 01 SITE NUMBER 382947100522901

18-32W-17ABA. ED PITTMAN. DRILLED, UNUSED, WATER-TABLE WELL IN OGALLALA FORMATION. DEPTH 108 FEET, DIAMETER 18 INCHES. MEASURING POINT, TOP OF 2-INCH NIPPLE ON WELL CAP, 1.5 FEET ABOVE LSD. REPLACEMENT WELL FOR 18-33W-12ADD.

ALTITUDE OF LAND SURFACE 2970. FEET

RECORDS AVAILABLE 1965 TO CURRENT YEAR.

HIGHEST WATER LEVEL 78.03 FEET BELOW LAND SURFACE DATUM JAN 26, 1965.

LOWEST WATER LEVEL 112.08 FEET BELOW LAND SURFACE DATUM MAR 06, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 31, 1979 109.18 ; MAR 06, 1979 112.08 ; JUN 28, 1979 111.55 ; SEP 06, 1979 112.57 S.

WELL 18S 33W 05CCC 01 SITE NUMBER 383046100594901

18-33W-5CCC. N. C. BUEHLER. DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FORMATION. DEPTH 119 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN NORTH SIDE PUMP BASE, 0.3 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 3041. FEET

RECORDS AVAILABLE 1944, 1951, 1961, 1966 TO CURRENT YEAR.

HIGHEST WATER LEVEL 75.15 FEET BELOW LAND SURFACE DATUM JUN 16, 1944.

LOWEST WATER LEVEL 102.92 FEET BELOW LAND SURFACE DATUM JAN 18, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 30, 1979 94.56 ; MAR 14, 1979 96.26 ; JUN 19, 1979 95.10 ; SEP 10, 1979 95.08 .

WELL 18S 33W 26DAD 02 SITE NUMBER 382730100553102

18-33W-26DAD2. U. S. GEOL. SURVEY. DRILLED, WATER-TABLE OBSERVATION WELL IN QUATERNARY UNDIFFERENTIATED AND OGALLALA FORMATION. DEPTH 195 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE 2.6 FEET ABOVE LSD. REPLACEMENT WELL FOR 18-33W-26DAD.

ALTITUDE OF LAND SURFACE 2952. FEET

RECORDS AVAILABLE 1971 TO CURRENT YEAR.

HIGHEST WATER LEVEL 53.45 FEET BELOW LAND SURFACE DATUM DEC 27, 1971.

LOWEST WATER LEVEL 71.94 FEET BELOW LAND SURFACE DATUM SEP 11, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 30, 1979 68.88 ; MAR 26, 1979 70.89 ; JUN 21, 1979 71.26 ; SEP 11, 1979 71.94 .

SCOTT COUNTY -- CONTINUED

WELL 18S 34W 25BBD 01 SITE NUMBER 382756101015201

18-34W-25BBD. CLAUDE HUGHES. DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FORMATION. DEPTH 142 FEET, DIAMETER 18 INCHES. MEASURING POINT, 1.30 FEET ABOVE LSD FROM SEPTEMBER 1940 TO APRIL 29, 1942, THEN 0.2 FOOT ABOVE LSD FROM NOVEMBER 19, 1942 TO APRIL 8, 1947. SINCE APRIL 23, 1951 MEASURING POINT HAS BEEN HOLE IN WEST SIDE OF PUMP BASE, AT LAND SURFACE. G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 3092. FEET

RECORDS AVAILABLE 1940 - 1947, 1951 - 1952, 1956, 1961, 1965 TO CURRENT YEAR.

HIGHEST WATER LEVEL 87.82 FEET BELOW LAND SURFACE DATUM APR 29, 1942.

LOWEST WATER LEVEL 116.78 FEET BELOW LAND SURFACE DATUM SEP 11, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 29, 1979 109.9 ; MAR 26, 1979 110.81 ; JUN 21, 1979 110.29 ; SEP 11, 1979 116.78 .

WELL 19S 32W 06CCB 01 SITE NUMBER 382539100541601

19-32W-6CCB. B. G. WITMAN. DRILLED, WATER-TABLE OBSERVATION WELL IN QUATERNARY UNDIFFERENTIATED AND OGALLALA FORMATION. DEPTH 115 FEET, DIAMETER 16 INCHES. MEASURING POINT, TOP OF PLATFORM, 2.65 FEET ABOVE LSD. MP CHANGED TO TOP OF WELL CASING, 1.42 FEET ABOVE LSD, NOVEMBER 7, 1972.

ALTITUDE OF LAND SURFACE 2937. FEET

RECORDS AVAILABLE 1972 TO CURRENT YEAR.

HIGHEST WATER LEVEL 37.56 FEET BELOW LAND SURFACE DATUM JUN 10, 1973.

LOWEST WATER LEVEL 60.39 FEET BELOW LAND SURFACE DATUM SEP 11, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 05, 1978	59.71	DEC 25, 1978	59.11	MAR 20, 1979	56.76	JUN 10, 1979	56.44
10	59.80	31	58.92	26	56.85	15	56.22
15	60.08	JAN 05, 1979	58.75	31	56.81	20	56.42
20	60.13	10	58.65	APR 05	56.76	21	56.37
25	60.23	15	58.38	10	56.53	25	56.48
31	60.22	20	58.13	15	56.67	30	56.62
NOV 05	60.16	30	58.03	20	56.73	JUL 05	56.90
10	60.16	31	57.92	25	56.64	10	56.96
15	59.98	FEB 05	57.73	30	56.58	15	57.38
20	59.92	10	57.69	MAY 05	56.45	20	58.21
25	59.72	15	57.53	10	56.72	25	58.44
30	59.65	20	57.29	15	56.82	31	59.01
DEC 05	59.63	25	57.16	20	56.75	AUG 05	59.35
10	59.47	MAR 05	57.06	25	56.60	SEP 11	60.39
15	59.30	10	56.88	31	56.55		
20	59.23	15	56.85	JUN 05	56.35		

WELL 19S 32W 32ACB 01 SITE NUMBER 382144100523501

19-32W-32ACB. A. A. ALLEN. DRILLED, WATER-TABLE IRRIGATION WELL IN QUATERNARY UNDIFFERENTIATED AND OGALLALA FORMATION. DEPTH 210 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN NORTHWEST CORNER OF PUMP BASE AT LAND SURFACE. REPLACEMENT WELL FOR 19-32W-28DCD.

ALTITUDE OF LAND SURFACE 2984. FEET

RECORDS AVAILABLE 1973 TO CURRENT YEAR.

HIGHEST WATER LEVEL 77.03 FEET BELOW LAND SURFACE DATUM JAN 11, 1973.

LOWEST WATER LEVEL 87.76 FEET BELOW LAND SURFACE DATUM SEP 05, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 30, 1979 84.32 ; MAR 06, 1979 82.32 .

SCOTT COUNTY -- CONTINUED

WELL 19S 33W 15DBD 01 SITE NUMBER 382401100565301

19-33W-15DBD, OTTO GEESEKA, DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FORMATION, DEPTH 132 FEET, DIAMETER 18 INCHES, MEASURING POINT, TOP OF HOLE IN PUMP BASE, 1.5 FEET ABOVE LSD, G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 2964. FEET

RECORDS AVAILABLE 1936, 1940 - 1947, 1951, 1956, 1961, 1965 TO CURRENT YEAR.

HIGHEST WATER LEVEL 45.60 FEET BELOW LAND SURFACE DATUM AUG 01, 1936.

LOWEST WATER LEVEL 110.16 FEET BELOW LAND SURFACE DATUM SEP 27, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 30, 1979 98.76 ; MAR 26, 1979 101.36 ; JUN 21, 1979 101.61 .

WELL 19S 33W 29CBB 02 SITE NUMBER 382223100594602

19-33W-29CBB2, SAMUEL BONTRAGER, DRILLED, WATER-TABLE IRRIGATION WELL IN QUATERNARY UNDIFFERENTIATED AND OGALLALA FORMATION, DEPTH NOT REPORTED, DIAMETER 16 INCHES, MEASURING POINT, TOP OF CASING, 0.3 FOOT ABOVE LSD, REPLACEMENT WELL FOR 19-33W-29CBB.

ALTITUDE OF LAND SURFACE 2994. FEET

RECORDS AVAILABLE 1971 TO CURRENT YEAR.

HIGHEST WATER LEVEL 113.23 FEET BELOW LAND SURFACE DATUM JAN 21, 1974.

LOWEST WATER LEVEL 126.39 FEET BELOW LAND SURFACE DATUM JUN 21, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 30, 1979 123.19 ; MAR 26, 1979 117.8 ; JUN 21, 1979 126.39 .

WELL 20S 32W 07CBA 01 SITE NUMBER 381946100540601

20-32W-7CBA, J. F. ROTHFELDER, DRILLED, UNUSED WATER-TABLE WELL IN QUATERNARY UNDIFFERENTIATED AND OGALLALA FORMATION, DIAMETER 16 INCHES, DEPTH 112 FEET, MEASURING POINT, HOLE IN DISC, 0.3 FOOT ABOVE LSD, REPLACEMENT WELL FOR 20-32W-7BAA, MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 2939. FEET

RECORDS AVAILABLE 1951, 1970 TO CURRENT YEAR.

HIGHEST WATER LEVEL 33.01 FEET BELOW LAND SURFACE DATUM APR 03, 1951.

LOWEST WATER LEVEL 79.79 FEET BELOW LAND SURFACE DATUM SEP 06, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 30, 1979 76.62 ; MAR 06, 1979 76.46 ; JUN 28, 1979 77.48 ; SEP 06, 1979 79.79 .

WELL 20S 33W 09BBB 01 SITE NUMBER 382013100583901

20-33W-9BBB, R. K. PETRO, DRILLED, UNUSED, WATER-TABLE WELL IN THE OGALLALA FORMATION, DEPTH 128 FEET, DIAMETER 24 INCHES, MEASURING POINT, TOP OF CONCRETE BASE, 0.1 FOOT ABOVE LSD, MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 2973. FEET

RECORDS AVAILABLE 1931 TO CURRENT YEAR.

HIGHEST WATER LEVEL 55.92 FEET BELOW LAND SURFACE DATUM JUN 05, 1932.

LOWEST WATER LEVEL 95.62 FEET BELOW LAND SURFACE DATUM SEP 11, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 05, 1978	94.33	NOV 10, 1978	94.48	DEC 15, 1978	94.60	APR 05, 1979	94.73
10	94.35	15	94.48	20	94.60	10	94.84
15	94.40	20	94.49	25	94.60	15	94.91
20	94.40	25	94.52	31	84.60	20	94.99
25	94.40	30	94.60	JAN 30, 1979	94.71	JUN 21	95.54
30	94.44	DEC 05	94.50	MAR 26	94.55	SEP 11	95.62
NOV 05	94.45	10	94.60	31	94.63		

SCOTT COUNTY -- CONTINUED

WELL 20S 33W 21ABD 01 SITE NUMBER 381822100575701

20-33W-21ABD. MARION HUTCHINS. DRILLED, WATER-TABLE IRRIGATION WELL IN QUATERNARY UNDIFFERENTIATED AND OGALLALA FORMATION. DEPTH 154 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN EAST SIDE PUMP BASE, 0.2 FOOT ABOVE LSD. G = MEASURED BY K.S.B.A. MEASURING POINT CHANGED TO 0.3 FOOT ABOVE LSD, APRIL 7, 1976.

ALTITUDE OF LAND SURFACE 2957. FEET

RECORDS AVAILABLE 1944, 1965 TO CURRENT YEAR.

HIGHEST WATER LEVEL 47.07 FEET BELOW LAND SURFACE DATUM JUN 15, 1944.

LOWEST WATER LEVEL 128.58 FEET BELOW LAND SURFACE DATUM JAN 30, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 30, 1979 128.58 .

SEDGWICK COUNTY

WELL 25S 01W 26DBD 01 SITE NUMBER 375039097234201

25-1W-26DBD. (12) DR. A. D. UPDEGRAPH. DRILLED, UNUSED WATER-TABLE OBSERVATION WELL IN SAND AND GRAVEL OF PLEISTOCENE AGE. DEPTH 54 FEET; DIAMETER 24 INCHES. MEASURING POINT, STEEL PLATE ON INSTRUMENT SHELF 2.99 FEET ABOVE LSD. MEASURING POINT CHANGED TO TOP OF CASING AT LAND SURFACE, JUNE 26, 1957.

ALTITUDE OF LAND SURFACE 1351.96 FEET

RECORDS AVAILABLE 1937 TO CURRENT YEAR.

HIGHEST WATER LEVEL 10.05 FEET BELOW LAND SURFACE DATUM JUL 25, 1951.

LOWEST WATER LEVEL 22.60 FEET BELOW LAND SURFACE DATUM NOV 22, 1952.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 20, 1978	18.62	JAN 19, 1979	19.05	APR 20, 1979	17.75	JUL 20, 1979	16.70
NOV 20	18.89	FEB 20	19.16	MAY 18	17.74	AUG 21	17.59
DEC 20	18.97	MAR 20	18.51	JUN 20	17.44	SEP 19	17.69
JAN 02, 1979	19.08	APR 01	18.51	JUL 01	17.90		

WELL 26S 01W 19ABA 01 SITE NUMBER 374659097280201

26-1W-19ABA. (805) CITY OF WICHITA. DRIVEN, WATER-TABLE OBSERVATION WELL IN SAND AND GRAVEL OF PLEISTOCENE AGE. DEPTH 38 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 3.3 FEET ABOVE LSD.

ALTITUDE OF LAND SURFACE 1351.7 FEET

RECORDS AVAILABLE 1938 TO CURRENT YEAR.

HIGHEST WATER LEVEL 1.59 FEET BELOW LAND SURFACE DATUM SEP 08, 1951.

LOWEST WATER LEVEL 9.89 FEET BELOW LAND SURFACE DATUM SEP 30, 1960.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 21, 1978	8.51	MAR 28, 1979	6.83	JUN 28, 1979	5.99	SEP 18, 1979	7.55
JAN 02, 1979	8.45	APR 01	6.83	JUL 01	5.70		

WELL 26S 01W 31CCC 01 SITE NUMBER 374428097284301

26-1W-31CCC. KANSAS GAS AND ELECTRIC CO. DRILLED OBSERVATION WELL, DIAMETER 1.25 INCHES, DEPTH 42 FEET. MEASURING POINT, TOP OF PIPE, 2.52 FEET ABOVE LSD. MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 1360.4 FEET

RECORDS AVAILABLE 1960 TO CURRENT YEAR.

HIGHEST WATER LEVEL 19.88 FEET BELOW LAND SURFACE DATUM DEC 18, 1961.

LOWEST WATER LEVEL 26.76 FEET BELOW LAND SURFACE DATUM SEP 18, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 21, 1978 26.59 ; MAR 28, 1979 26.49 ; JUN 28, 1979 26.11 ; SEP 18, 1979 26.76 .

SEDGWICK COUNTY -- CONTINUED

WELL 26S 01W 31CCC 02 SITE NUMBER 374428097284302

26-1W-31CCC2. KANSAS GAS AND ELECTRIC CO. DRILLED OBSERVATION WELL, DIAMETER 1.25 INCHES, DEPTH 109 FEET. MEASURING POINT, TOP OF PIPE, 2.53 FEET ABOVE LSD. MEASURED BY K.S.B.A.

RECORDS AVAILABLE 1960 TO CURRENT YEAR.

HIGHEST WATER LEVEL 20.46 FEET BELOW LAND SURFACE DATUM DEC 18, 1961.

LOWEST WATER LEVEL 27.21 FEET BELOW LAND SURFACE DATUM SEP 18, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 21, 1978 27.09 ; MAR 28, 1979 26.77 ; JUN 28, 1979 26.37 ; SEP 18, 1979 27.21 .

WELL 26S 02W 02DDD 01 SITE NUMBER 374843097295801

26-2W-2DDD. KANSAS GAS AND ELECTRIC CO. DRILLED OBSERVATION WELL, DIAMETER 1.25 INCHES, DEPTH 27 FEET. MEASURING POINT, TOP OF PIPE, 2.48 FEET ABOVE LSD. MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 1368.2 FEET

RECORDS AVAILABLE 1960 - 1967, 1969 TO CURRENT YEAR.

HIGHEST WATER LEVEL 2.96 FEET BELOW LAND SURFACE DATUM MAR 16, 1973.

LOWEST WATER LEVEL 8.45 FEET BELOW LAND SURFACE DATUM JUN 27, 1974.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 21, 1978 8.08 ; MAR 28, 1979 6.85 ; JUN 28, 1979 5.36 ; SEP 18, 1979 6.93 .

WELL 26S 02W 02DDD 02 SITE NUMBER 374843097295802

26-2W-2DDD2. KANSAS GAS AND ELECTRIC CO. DRILLED, WATER-TABLE OBSERVATION WELL. DEPTH 109 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 2.48 FEET ABOVE LSD. MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 1368.2 FEET

RECORDS AVAILABLE 1960 - 1967, 1969 TO CURRENT YEAR.

HIGHEST WATER LEVEL 6.79 FEET BELOW LAND SURFACE DATUM MAY 15, 1961.

LOWEST WATER LEVEL 11.62 FEET BELOW LAND SURFACE DATUM SEP 21, 1972.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 21, 1978 10.88 ; MAR 28, 1979 9.92 ; JUN 28, 1979 8.43 ; SEP 18, 1979 9.47 .

WELL 26S 02W 07AAA 01 SITE NUMBER 374837097342001

26-2W-7AAA. KANSAS GAS AND ELECTRIC CO. DRILLED, WATER-TABLE OBSERVATION WELL. DEPTH 62 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 2.33 FEET ABOVE LSD. MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 1388.2 FEET

RECORDS AVAILABLE 1960 - 1963, 1965 TO CURRENT YEAR.

HIGHEST WATER LEVEL 1.36 FEET BELOW LAND SURFACE DATUM AUG 22, 1963.

LOWEST WATER LEVEL 16.48 FEET BELOW LAND SURFACE DATUM JUN 13, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 21, 1978 15.41 ; MAR 28, 1979 14.32 ; JUN 28, 1979 13.86 ; SEP 18, 1979 15.32 .

WELL 26S 02W 07AAA 02 SITE NUMBER 374837097342002

26-2W-7AAA2. KANSAS GAS AND ELECTRIC CO. DRILLED, WATER-TABLE OBSERVATION WELL. DEPTH 109 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 2.54 FEET ABOVE LSD. MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 1388.2 FEET

RECORDS AVAILABLE 1960 TO CURRENT YEAR.

HIGHEST WATER LEVEL 8.63 FEET BELOW LAND SURFACE DATUM APR 23, 1963.

LOWEST WATER LEVEL 16.12 FEET BELOW LAND SURFACE DATUM JUN 13, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 21, 1978 15.29 ; MAR 28, 1979 14.22 ; JUN 28, 1979 13.78 ; SEP 18, 1979 15.25 .

SEDGWICK COUNTY -- CONTINUED

WELL 26S 02W 10BBB 01 SITE NUMBER 374837097320101

26-2W-10BBB. (607) CITY OF WICHITA. DRIVEN, WATER-TABLE OBSERVATION WELL IN SAND AND GRAVEL OF PLEISTOCENE AGE. DEPTH 37 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 1.0 FOOT ABOVE LSD.

ALTITUDE OF LAND SURFACE 1392. FEET

RECORDS AVAILABLE 1938 TO CURRENT YEAR.

HIGHEST WATER LEVEL 18.09 FEET BELOW LAND SURFACE DATUM OCT 03, 1951.

LOWEST WATER LEVEL 28.44 FEET BELOW LAND SURFACE DATUM SEP 26, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 21, 1978	26.35	MAR 28, 1979	27.77	JUN 28, 1979	27.00	SEP 18, 1979	27.60
JAN 02, 1979	28.15	APR 01	27.62	JUL 01	26.80		

WELL 26S 02W 10DAA 01 SITE NUMBER 374811097310301

26-2W-10DAA. KANSAS GAS AND ELECTRIC CO. DRILLED WATER-TABLE OBSERVATION WELL. DEPTH 126 FEET, DIAMETER 2 INCHES. MEASURING POINT, TOP OF PIPE, 2.48 FEET ABOVE LSD. MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 1380. FEET

RECORDS AVAILABLE 1960 TO CURRENT YEAR.

HIGHEST WATER LEVEL 14.58 FEET BELOW LAND SURFACE DATUM MAY 15, 1961.

LOWEST WATER LEVEL 21.71 FEET BELOW LAND SURFACE DATUM MAR 28, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

MAR 28, 1979 21.71 ; JUN 28, 1979 21.07 ; SEP 18, 1979 20.99 .

WELL 26S 02W 14BAA 01 SITE NUMBER 374744097303001

26-2W-14BAA. KANSAS GAS AND ELECTRIC CO. DRILLED, WATER-TABLE OBSERVATION WELL. DEPTH 175 FEET, DIAMETER 4 INCHES. MEASURING POINT, TOP OF PIPE, 3.0 FEET ABOVE LSD. MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 1374. FEET

RECORDS AVAILABLE 1965 TO CURRENT YEAR.

HIGHEST WATER LEVEL 14.97 FEET BELOW LAND SURFACE DATUM JAN 25, 1966.

LOWEST WATER LEVEL 22. FEET BELOW LAND SURFACE DATUM SEP 26, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 21, 1978 21.73 ; MAR 28, 1979 21.01 ; JUN 28, 1979 21.07 ; SEP 18, 1979 21.66 .

WELL 26S 02W 14DDD 01 SITE NUMBER 374658097295701

26-2W-14DDD. KANSAS GAS AND ELECTRIC CO. DRILLED, WATER-TABLE OBSERVATION WELL. DEPTH 43 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 2.54 FEET ABOVE LSD. MEASURED BY K.S.B.A.

RECORDS AVAILABLE 1960 TO CURRENT YEAR.

HIGHEST WATER LEVEL 10.23 FEET BELOW LAND SURFACE DATUM MAY 15, 1961.

LOWEST WATER LEVEL 19.9 FEET BELOW LAND SURFACE DATUM SEP 26, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 21, 1978 19.36 ; MAR 28, 1979 19.19 ; JUN 28, 1979 18.42 ; SEP 18, 1979 19.13 .

SEDGWICK COUNTY -- CONTINUED

WELL 26S 02W 15CBC 01 SITE NUMBER 374712097320001

26-2W-15CBC. MISSOURI PACIFIC RAILROAD. DRILLED, WATER-TABLE OBSERVATION WELL. DEPTH 63 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 2.83 FEET ABOVE LSD. MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 1379.8 FEET

RECORDS AVAILABLE 1960 TO CURRENT YEAR.

HIGHEST WATER LEVEL 14.27 FEET BELOW LAND SURFACE DATUM MAY 26, 1961.

LOWEST WATER LEVEL 24.54 FEET BELOW LAND SURFACE DATUM SEP 26, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 21, 1978 23.55 ; MAR 28, 1979 23.51 ; JUN 28, 1979 23.28 ; SEP 18, 1979 24.05 .

WELL 26S 02W 15DBB 01 SITE NUMBER 374718097312801

26-2W-15DBB. KANSAS GAS AND ELECTRIC CO. DRILLED, WATER-TABLE OBSERVATION WELL. DEPTH 101 FEET, DIAMETER 4 INCHES. MEASURING POINT, TOP OF PIPE, 2.27 FEET ABOVE LSD. MEASURED BY K.S.B.A.

RECORDS AVAILABLE 1961 TO CURRENT YEAR.

HIGHEST WATER LEVEL 13.37 FEET BELOW LAND SURFACE DATUM MAY 15, 1961.

LOWEST WATER LEVEL 24.96 FEET BELOW LAND SURFACE DATUM SEP 26, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 21, 1978 23.32 ; MAR 28, 1979 23.72 ; JUN 28, 1979 24.10 ; SEP 18, 1979 24.33 .

WELL 26S 02W 22ABA 01 SITE NUMBER 374652097311901

26-2W-22ABA. AL STOLTZ. DRILLED, WATER-TABLE IRRIGATION WELL IN SAND AND GRAVEL OF PLEISTOCENE AGE. DEPTH 42 FEET, DIAMETER 6 INCHES. MEASURING POINT, BOTTOM INSIDE LIP OF ELBOW, 1.25 FEET ABOVE LSD.

ALTITUDE OF LAND SURFACE 1360. FEET

RECORDS AVAILABLE 1960 TO CURRENT YEAR.

HIGHEST WATER LEVEL 3.58 FEET BELOW LAND SURFACE DATUM DEC 19, 1960.

LOWEST WATER LEVEL 15.68 FEET BELOW LAND SURFACE DATUM SEP 18, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 21, 1978 14.81 ; MAR 28, 1979 15.13 ; JUN 28, 1979 15.05 ; SEP 18, 1979 15.68 .

WELL 26S 02W 23CCC 01 SITE NUMBER 374606097305501

26-2W-23CCC. KANSAS GAS AND ELECTRIC CO. DRILLED, WATER-TABLE OBSERVATION WELL. DEPTH 43 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 2.52 FEET ABOVE LSD. MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 1363.6 FEET

RECORDS AVAILABLE 1960 TO CURRENT YEAR.

HIGHEST WATER LEVEL 7.77 FEET BELOW LAND SURFACE DATUM DEC 18, 1961.

LOWEST WATER LEVEL 18.05 FEET BELOW LAND SURFACE DATUM SEP 21, 1972.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 21, 1978 17.07 ; MAR 28, 1979 17.01 ; JUN 28, 1979 16.50 ; SEP 18, 1979 17.65 .

WELL 26S 02W 24DDD 01 SITE NUMBER 374606097285101

26-2W-24DDD. KANSAS GAS AND ELECTRIC CO. DRILLED, WATER-TABLE OBSERVATION WELL. DEPTH 42 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 2.32 FEET ABOVE LSD. MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 1366.1 FEET

RECORDS AVAILABLE 1960 TO CURRENT YEAR.

HIGHEST WATER LEVEL 16.78 FEET BELOW LAND SURFACE DATUM DEC 18, 1961.

LOWEST WATER LEVEL 24.31 FEET BELOW LAND SURFACE DATUM DEC 21, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 21, 1978 24.31 ; MAR 28, 1979 24.05 ; JUN 28, 1979 23.48 ; SEP 18, 1979 23.79 .

SEDGWICK COUNTY -- CONTINUED

WELL 26S 02W 29AAA 01 SITE NUMBER 374600097331401

26-2W-29AAA. KANSAS GAS AND ELECTRIC CO. DRILLED, WATER-TABLE OBSERVATION WELL. DEPTH 50 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 2.59 FEET ABOVE LSD. MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 1384. FEET

RECORDS AVAILABLE 1960 TO CURRENT YEAR.

HIGHEST WATER LEVEL 3.74 FEET BELOW LAND SURFACE DATUM OCT 20, 1960.

LOWEST WATER LEVEL 26.66 FEET BELOW LAND SURFACE DATUM SEP 18, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 21, 1978 26.55 ; MAR 28, 1979 26.41 ; JUN 28, 1979 26.13 ; SEP 18, 1979 26.66 .

WELL 28S 01W 11BCB 01 SITE NUMBER 373802097241801

28-1W-11BCB. KANSAS GAS AND ELECTRIC CO. DRILLED, WATER-TABLE OBSERVATION WELL. DEPTH 83 FEET, DIAMETER 4 INCHES. MEASURING POINT, TOP OF PIPE, 1.18 FEET ABOVE LSD. MEASURED BY K.S.B.A.

RECORDS AVAILABLE 1964 TO CURRENT YEAR.

HIGHEST WATER LEVEL 12.75 FEET BELOW LAND SURFACE DATUM NOV 20, 1964.

LOWEST WATER LEVEL 19.04 FEET BELOW LAND SURFACE DATUM DEC 21, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 21, 1978 19.04 ; MAR 28, 1979 17.82 ; JUN 28, 1979 18.45 ; SEP 18, 1979 18.66 .

WELL 28S 01W 11CCD 01 SITE NUMBER 373730097235301

28-1W-11CCD. KANSAS GAS AND ELECTRIC CO. DRILLED, WATER-TABLE OBSERVATION WELL. DEPTH 80 FEET, DIAMETER 4 INCHES. MEASURING POINT, TOP OF PIPE, 1.15 FEET ABOVE LSD. MEASURED BY K.S.B.A.

RECORDS AVAILABLE 1964 - 1977, 1979 TO CURRENT YEAR.

HIGHEST WATER LEVEL 11.3 FEET BELOW LAND SURFACE DATUM NOV 20, 1964.

LOWEST WATER LEVEL 19.54 FEET BELOW LAND SURFACE DATUM DEC 18 1967.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 21, 1978 16.24 ; MAR 28, 1979 14.99 ; JUN 28, 1979 15.75 ; SEP 18, 1979 15.99 .

SEDGWICK COUNTY -- CONTINUED

WELL 28S 01W 15ACA 01 SITE NUMBER 373710097244201

28-1W-15ACA. FLOYD HINCKLEY. DRILLED, ABANDONED, WATER-TABLE STOCK WELL IN SAND AND GRAVEL OF PLEISTOCENE AGE. DEPTH 38 FEET, DIAMETER 5 INCHES. MEASURING POINT, TOP OF CASING, NORTH SIDE, 2.2 FEET ABOVE LSD. MP CHANGED TO LAND SURFACE, OCTOBER 1974. MEASURED BY K.S.B.A. REPLACED BY 28-1W-15ACA2, JUNE 1979.

RECORDS AVAILABLE 1964 TO CURRENT YEAR.

HIGHEST WATER LEVEL 25.18 FEET BELOW LAND SURFACE DATUM SEP 20, 1965.

LOWEST WATER LEVEL 29.6 FEET BELOW LAND SURFACE DATUM SEP 26, 1978.

WATER LEVELS WERE NOT MEASURED IN THIS WELL BETWEEN 10/01/1978 AND 09/30/1979

WELL 28S 01W 36ADC 01 SITE NUMBER 373426097222101

28-1W-36ADC. GEORGE LIPKE. DRILLED, WATER-TABLE IRRIGATION WELL IN SAND AND GRAVEL OF PLEISTOCENE AGE. DEPTH 56 FEET, DIAMETER 10 INCHES. MEASURING POINT, HOLE IN SOUTH EDGE OF PUMP, 1.2 FEET ABOVE LSD. MP CHANGED TO 2.7 FEET ABOVE LSD, DECEMBER 21, 1978.

ALTITUDE OF LAND SURFACE 1330. FEET

RECORDS AVAILABLE 1959 TO CURRENT YEAR.

HIGHEST WATER LEVEL 28.49 FEET BELOW LAND SURFACE DATUM JAN 16, 1962.

LOWEST WATER LEVEL 32.37 FEET BELOW LAND SURFACE DATUM JUN 27, 1974.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 21, 1978 31.6 ; MAR 28, 1979 31.47 ; JUN 26, 1979 31.44 ; SEP 18, 1979 31.93 .

SEWARD COUNTY

WELL 31S 31W 08BCC 01 SITE NUMBER 372159100432201

31-31W-8BCC. J. A. FLEMING. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 400 FEET, DIAMETER 16 INCHES. MEASURING POINT, EDGE OF 0.75-INCH HOLE IN NORTHWEST CORNER OF PUMP HEAD BASE, 0.5 FOOT ABOVE LSD. 6 = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 2829. FEET

RECORDS AVAILABLE 1962 TO CURRENT YEAR.

HIGHEST WATER LEVEL 167.55 FEET BELOW LAND SURFACE DATUM JUN 12, 1962.

LOWEST WATER LEVEL 202.84 FEET BELOW LAND SURFACE DATUM FEB 01, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

FEB 01, 1979 202.84 ; MAR 05, 1979 200.76 ; JUN 14, 1979 200.13 .

SEWARD COUNTY -- CONTINUED

WELL 32S 32W 14BBB 01 SITE NUMBER 371615100463701

32-32W-14BBB. FRANK E. DUFIELD. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 420 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN SOUTHWEST CORNER OF PUMP BASE, 0.6 FOOT ABOVE LSD. MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 2830. FEET

RECORDS AVAILABLE 1964 TO CURRENT YEAR.

HIGHEST WATER LEVEL 182.33 FEET BELOW LAND SURFACE DATUM DEC 11, 1964.

LOWEST WATER LEVEL 217.4 FEET BELOW LAND SURFACE DATUM FEB 01, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

FEB 01, 1979 217.4 ; MAR 05, 1979 214.92 ; JUN 14, 1979 212.62 .

WELL 32S 33W 21CDB 01 SITE NUMBER 371444100550101

32-33W-21CDB. (15) CABOT CARBON CO. DRILLED, WATER-TABLE DOMESTIC AND STOCK WELL IN ALLUVIUM. DIAMETER 5 INCHES, DEPTH 53 FEET. MEASURING POINT, TOP OF HOLE IN STEEL DISK, 0.20 FOOT ABOVE LSD. G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 2697. FEET

RECORDS AVAILABLE 1940 - 1965, 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 15.76 FEET BELOW LAND SURFACE DATUM AUG 20, 1942.

LOWEST WATER LEVEL 20.63 FEET BELOW LAND SURFACE DATUM MAR 07, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

FEB 01, 1979 19.53 MAR 05, 1979 19.71 ; JUN 14, 1979 18.79 ; SEP 05, 1979 19.76 .

WELL 34S 33W 07CCB 01 SITE NUMBER 370602100572601

34-33W-7CCB. KENNETH METCALF. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 360 FEET, DIAMTER 24 INCHES. MEASURING POINT, TOP SOUTH EDGE OF CASING, 2.5 FEET ABOVE LSD. MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 2901. FEET

RECORDS AVAILABLE 1964 TO CURRENT YEAR.

HIGHEST WATER LEVEL 126.46 FEET BELOW LAND SURFACE DATUM MAR 05, 1975.

LOWEST WATER LEVEL 133.37 FEET BELOW LAND SURFACE DATUM JAN 22, 1971.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

FEB 02, 1979 129.65 ; MAR 05, 1979 129.55 ; SEP 05, 1979 130.07 .

WELL 35S 34W 10BBB 01 SITE NUMBER 370128101004001

35-34W-10BBB. JOHN GROVER. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 352 FEET, DIAMETER 16 INCHES. MEASURING POINT, BOTTOM NORTH SIDE OF PUMP, 1.00 FOOT ABOVE LSD. G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 2912. FEET

RECORDS AVAILABLE 1954, 1964 TO CURRENT YEAR.

HIGHEST WATER LEVEL 66.94 FEET BELOW LAND SURFACE DATUM MAR 07, 1978.

LOWEST WATER LEVEL 97.51 FEET BELOW LAND SURFACE DATUM JUL 25, 1966.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

FEB 02, 1979 70.15 ; MAR 05, 1979 68.76 ; JUN 14, 1979 69.63 ; SEP 05, 1979 79.51 .

STAFFORD COUNTY

WELL 21S 13W 27DDD 02 SITE NUMBER 381120098434802

21-13W-27DDD2. (19A) ARTHUR GATES. DRILLED, WATER-TABLE OBSERVATION WELL IN SAND AND GRAVEL OF PLEISTOCENE AGE, DIAMETER 1.25 INCHES, DEPTH 25 FEET, MEASURING POINT, TOP OF PIPE, 3.10 FEET ABOVE LSD, G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 1877. FEET

RECORDS AVAILABLE 1963 TO CURRENT YEAR.

HIGHEST WATER LEVEL 0.50 FEET BELOW LAND SURFACE DATUM MAR 14, 1974.

LOWEST WATER LEVEL 10.79 FEET BELOW LAND SURFACE DATUM SEP 15, 1964.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 27, 1978 7.35 ; FEB 13, 1979 7.5 ; MAR 27, 1979 6.34 ; JUN 18, 1979 6.80 ;

SEP 19, 1979 8.66 .

WELL 22S 13W 29DAD 01 SITE NUMBER 380617098460101

22-13W-29DAD. MRS. L. C. WALLS. BORED, WATER-TABLE OBSERVATION WELL IN THE OGALLALA FORMATION. DEPTH 30 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 2.47 FEET ABOVE LSD. MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 1902. FEET

RECORDS AVAILABLE 1961 TO CURRENT YEAR.

HIGHEST WATER LEVEL 5.16 FEET BELOW LAND SURFACE DATUM DEC 20, 1973.

LOWEST WATER LEVEL 16.47 FEET BELOW LAND SURFACE DATUM SEP 19, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 20, 1978 12.59 ; FEB 13, 1979 15.98 ; MAR 27, 1979 14.74 ; JUN 18, 1979 14.53 ;

SEP 19, 1979 16.47 .

WELL 23S 13W 08CCB 01 SITE NUMBER 380333098465901

23-13W-8CCB. KANSAS GEOL. SURVEY. DRILLED, WATER-TABLE OBSERVATION WELL IN DEPOSITS OF PLEISTOCENE AGE. DEPTH 126 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 1.0 FOOT ABOVE LAND SURFACE.

ALTITUDE OF LAND SURFACE 1895. FEET

RECORDS AVAILABLE 1972 - 1973, 1976 TO CURRENT YEAR.

HIGHEST WATER LEVEL 4.49 FEET BELOW LAND SURFACE DATUM DEC 17, 1973.

LOWEST WATER LEVEL 11.18 FEET BELOW LAND SURFACE DATUM SEP 19, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 20, 1978 10.36 ; MAR 27, 1979 9.57 ; JUN 18, 1979 10.00 ; SEP 19, 1979 11.18 .

WELL 23S 14W 30BBB 01 SITE NUMBER 380136098544001

23-14W-30BBB. KANSAS GEOLOGICAL SURVEY. DRILLED, UNUSED, WATER-TABLE OBSERVATION WELL IN DEPOSITS OF PLEISTOCENE AGE. DEPTH 156 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 2.5 FEET ABOVE LSD.

ALTITUDE OF LAND SURFACE 1988. FEET

RECORDS AVAILABLE 1974 TO CURRENT YEAR.

HIGHEST WATER LEVEL 29.62 FEET BELOW LAND SURFACE DATUM MAR 25, 1975.

LOWEST WATER LEVEL 48.72 FEET BELOW LAND SURFACE DATUM SEP 19, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 27, 1978 35.23 ; FEB 13, 1979 34.79 ; MAR 29, 1979 34.36 ; JUN 19, 1979 42.11 ;

SEP 19, 1979 48.72 .

STAFFORD COUNTY -- CONTINUED

WELL 24S 13W 30BCB 01 SITE NUMBER 375605098480401

24-13W-30BCB, JEROME SAYLER, DRILLED, WATER-TABLE OBSERVATION WELL IN DEPOSITS OF PLEISTOCENE AGE. DEPTH 49 FEET, DIAMETER 2 INCHES. MEASURING POINT, TOP CASING, 1.5 FEET ABOVE LAND SURFACE.

ALTITUDE OF LAND SURFACE 1931. FEET

RECORDS AVAILABLE 1973 TO CURRENT YEAR.

HIGHEST WATER LEVEL 7.39 FEET BELOW LAND SURFACE DATUM MAR 14, 1974.

LOWEST WATER LEVEL 13.54 FEET BELOW LAND SURFACE DATUM OCT 04, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 04, 1978 13.54 ; JAN 08, 1979 12.8 ; FEB 13, 1979 12.71 ; MAR 29, 1979 13.09 ;

JUN 25, 1979 13.07 ; SEP 21, 1979 13.30 .

WELL 25S 11W 23DDD 01 SITE NUMBER 375112098293101

25-11W-23DDD, KANSAS GEOL. SURVEY. DRILLED, WATER-TABLE OBSERVATION WELL IN DEPOSITS OF PLEISTOCENE AGE. DEPTH 84 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 2.0 FEET ABOVE LAND SURFACE.

ALTITUDE OF LAND SURFACE 1796. FEET

RECORDS AVAILABLE 1974, 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 12.86 FEET BELOW LAND SURFACE DATUM MAY 08, 1974.

LOWEST WATER LEVEL 17.56 FEET BELOW LAND SURFACE DATUM MAR 21, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 20, 1978 17.09 ; FEB 13, 1979 17.24 ; MAR 27, 1979 15.85 ; JUN 28, 1979 15.48 ;

SEP 18, 1979 16.46 .

WELL 25S 13W 03BBB 01 SITE NUMBER 375433098444601

25-13W-3BBB, M. L. HALLEY, DRIVEN, UNUSED, WATER-TABLE WELL IN SAND AND GRAVEL OF PLEISTOCENE AGE. DIAMETER 1.25 INCHES, DEPTH 32 FEET. MEASURING POINT, TOP OF PIPE, 0.80 FOOT ABOVE LSD. G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 1932. FEET

RECORDS AVAILABLE 1951 TO CURRENT YEAR.

HIGHEST WATER LEVEL 2.75 FEET BELOW LAND SURFACE DATUM MAY 21, 1952.

LOWEST WATER LEVEL 21.45 FEET BELOW LAND SURFACE DATUM SEP 24, 1968.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 04, 1978 18.67 ; JAN 08, 1979 18.25 ; FEB 13, 1979 18.29 ; MAR 29, 1979 17.68 ;

JUN 25, 1979 18.04 ; SEP 21, 1979 20.30 .

WELL 25S 13W 16ACC 01 SITE NUMBER 375228098451901

25-13W-16ACC, ROBERT SHANK, DRILLED, WATER-TABLE IRRIGATION WELL. DEPTH 130 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN NORTHEAST SIDE OF PUMP BASE, 0.5 FOOT ABOVE LSD. MEASURED BY K.S.B.A.

RECORDS AVAILABLE 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 21.46 FEET BELOW LAND SURFACE DATUM JUN 28, 1978.

LOWEST WATER LEVEL 28.26 FEET BELOW LAND SURFACE DATUM OCT 04, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

OCT 04, 1978 28.26 ; JAN 08, 1979 26.23 ; MAR 29, 1979 25.49 ; JUN 25, 1979 25.44 ;

SEP 21, 1979 27.88 .

STANTON COUNTY

WELL 27S 39W 27BBA 01 SITE NUMBER 374039101343701

27-39W-27BBA. H. P. HOLZ. DRILLED, ARTESIAN IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 379 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN EAST SIDE OF PUMP BASE, 0.3 FOOT ABOVE LSD. G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 3175. FEET

RECORDS AVAILABLE 1958 TO CURRENT YEAR.

HIGHEST WATER LEVEL 78.41 FEET BELOW LAND SURFACE DATUM JAN 30, 1959.

LOWEST WATER LEVEL 176.56 FEET BELOW LAND SURFACE DATUM JUN 12, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

FEB 01, 1979 164.87 ; MAR 20, 1979 162.19 ; JUN 12, 1979 176.56 ; SEP 12, 1979 180.36 R.

WELL 27S 40W 21DAA 01 SITE NUMBER 374105101412501

27-40W-21DAA. LEAH CARRITHERS. DRILLED, UNUSED, WATER-TABLE WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 85 FEET, DIAMETER 5 INCHES. MEASURING POINT, LOWER NORTH EDGE OF BOARD, 1.00 FOOT ABOVE LSD. G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 3235. FEET

RECORDS AVAILABLE 1939 TO CURRENT YEAR.

HIGHEST WATER LEVEL 43.48 FEET BELOW LAND SURFACE DATUM NOV 06, 1958.

LOWEST WATER LEVEL 78.56 FEET BELOW LAND SURFACE DATUM SEP 12, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

FEB 01, 1979 75.77 ; MAR 20, 1979 75.86 ; JUN 12, 1979 76.14 ; SEP 12, 1979 78.56 .

WELL 27S 42W 31CCC 01 SITE NUMBER 373901101573501

27-42W-31CCC. EARL ANDERSON. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS, OGALLALA FORMATION AND UNDIFFERENTIATED MESOZOIC DEPOSITS. DEPTH 400 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN EAST SIDE OF STEEL PUMP BASE, 1.00 FOOT ABOVE LSD. G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 3537. FEET

RECORDS AVAILABLE 1958 TO CURRENT YEAR.

HIGHEST WATER LEVEL 190.33 FEET BELOW LAND SURFACE DATUM FEB 25, 1960.

LOWEST WATER LEVEL 232.34 FEET BELOW LAND SURFACE DATUM JUN 12, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

MAR 20, 1979 230.03 ; JUN 12, 1979 232.34 .

WELL 28S 39W 14BBC 01 SITE NUMBER 373703101334001

28-39W-14BBC. HERBERT CAMPBELL, JR. DRILLED, UNUSED ARTESIAN WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS, OGALLALA FORMATION AND UNDIFFERENTIATED MESOZOIC DEPOSITS. DEPTH 419 FEET, DIAMETER 16 INCHES. MEASURING POINT, TOP EAST SIDE OF CASING, AT LAND SURFACE. G = MEASURED BY K.S.B.A. MP CHANGED TO 0.5 FOOT ABOVE LSD, JANUARY 1963.

ALTITUDE OF LAND SURFACE 3158. FEET

RECORDS AVAILABLE 1959 TO CURRENT YEAR.

HIGHEST WATER LEVEL 82.01 FEET BELOW LAND SURFACE DATUM MAR 21, 1960.

LOWEST WATER LEVEL 131.39 FEET BELOW LAND SURFACE DATUM SEP 11, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

FEB 01, 1979 128.54 ; JUN 12, 1979 127.48 ; SEP 12, 1979 131.27 .

STANTON COUNTY -- CONTINUED

WELL 28S 39W 36ABB 01 SITE NUMBER 373433101320201

28-39W-36ABB. FRED SHOWE. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 408 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN PUMP BASE, SOUTH SIDE, 1.3 FEET ABOVE LSD.

ALTITUDE OF LAND SURFACE 3145. FEET

RECORDS AVAILABLE 1959 - 1960, 1962 - 1967, 1969 TO CURRENT YEAR.

HIGHEST WATER LEVEL 75.05 FEET BELOW LAND SURFACE DATUM MAR 31, 1960.

LOWEST WATER LEVEL 184.63 FEET BELOW LAND SURFACE DATUM SEP 12, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

FEB 01, 1979 167.34 ; JUN 12, 1979 164.35 ; SEP 12, 1979 184.63 .

WELL 28S 40W 12DDD 02 SITE NUMBER 373716101380902

28-40W-12DDD2. U.S.G.S. DRILLED, WATER-TABLE OBSERVATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 280 FEET, DIAMETER 1.25 INCHES. MEASURING POINT, TOP OF PIPE, 1.8 FEET ABOVE LSD. * = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 3225.2 FEET

RECORDS AVAILABLE 1963 TO CURRENT YEAR.

HIGHEST WATER LEVEL 101.55 FEET BELOW LAND SURFACE DATUM MAR 03, 1964.

LOWEST WATER LEVEL 212.38 FEET BELOW LAND SURFACE DATUM SEP 11, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

FEB 01, 1979 183.83 ; MAR 20, 1979 184.56 ; JUN 12, 1979 186.55 ; SEP 12, 1979 207.13 .

WELL 29S 41W 13ACC 01 SITE NUMBER 373136101450601

29-41W-13ACC. ALLTENE WICE. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 423 FEET, DIAMETER 16 INCHES. MEASURING POINT, LOWER EDGE OF CUT-OUT SOUTHEAST SIDE OF PUMP, 2.0 FEET ABOVE LSD.

ALTITUDE OF LAND SURFACE 3344. FEET

RECORDS AVAILABLE 1959 - 1960, 1963 TO CURRENT YEAR.

HIGHEST WATER LEVEL 178.87 FEET BELOW LAND SURFACE DATUM MAR 30, 1960.

LOWEST WATER LEVEL 247.28 FEET BELOW LAND SURFACE DATUM FEB 01, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

FEB 01, 1979 247.28 ; MAR 20, 1979 242.55 ; JUN 12, 1979 242.49 .

WELL 29S 42W 24CCC 01 SITE NUMBER 373018101521101

29-42W-24CCC. G. H. WILCOX. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS, OGALLALA FORMATION AND UNDIFFERENTIATED MESOZOIC DEPOSITS. DEPTH 515 FEET, DIAMETER 16 INCHES. MEASURING POINT, TOP OF CASING, 1.60 FEET ABOVE LSD.

ALTITUDE OF LAND SURFACE 3484. FEET

RECORDS AVAILABLE 1960, 1965 TO CURRENT YEAR.

HIGHEST WATER LEVEL 196.50 FEET BELOW LAND SURFACE DATUM APR 15, 1969.

LOWEST WATER LEVEL 254.38 FEET BELOW LAND SURFACE DATUM DEC 28, 1976.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

FEB 01, 1979 202.85 ; MAR 14, 1979 202.3 ; MAR 20, 1979 201.62 ; JUN 12, 1979 210.91 .

STANTON COUNTY -- CONTINUED

WELL 30S 40W 24CDC 01   SITE NUMBER 372504101304901

30-40W-24CDC. IONE SHONE. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS, OGALLALA FORMATION AND UNDIFFERENTIATED MESOZOIC DEPOSITS. DEPTH 295 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN PUMP BASE, EAST SIDE, 2.0 FEET ABOVE LSD. MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 3181. FEET

RECORDS AVAILABLE 1959 - 1960, 1963 TO CURRENT YEAR.

HIGHEST WATER LEVEL 105.07 FEET BELOW LAND SURFACE DATUM APR 01, 1960.

LOWEST WATER LEVEL 160.57 FEET BELOW LAND SURFACE DATUM DEC 04, 1974.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

FEB 01, 1979 151.09 ; JUN 12, 1979 148.67 ; SEP 12, 1979 157.76 R.

WELL 30S 43W 34BBB 01   SITE NUMBER 372405102005301

30-43W-34BBB. W. T. LAUMAN. DRILLED, ARTESIAN IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 103 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN SOUTH SIDE OF PUMP BASE, 1.15 FEET ABOVE LSD. G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 3622. FEET

RECORDS AVAILABLE 1958 TO CURRENT YEAR.

HIGHEST-WATER LEVEL 45.72 FEET BELOW LAND SURFACE DATUM DEC 04, 1958.

LOWEST WATER LEVEL 92.81 FEET BELOW LAND SURFACE DATUM SEP 19, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

FEB 01, 1979 82.19 ; MAR 20, 1979 80.01 ; JUN 12, 1979 81.57 ; SEP 12, 1979 91.48 .

STEVENS COUNTY

WELL 31S 35W 19CCC 01   SITE NUMBER 371950101102901

31-35W-19CCC. C. H. BUNTON. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 300 FEET, DIAMETER 16 INCHES. MEASURING POINT, EDGE OF 2-INCH HOLE IN NORTHWEST SIDE OF PUMP-HEAD BASE, 0.30 FOOT ABOVE LSD. G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 3039. FEET

RECORDS AVAILABLE 1962 TO CURRENT YEAR.

HIGHEST WATER LEVEL 178.57 FEET BELOW LAND SURFACE DATUM AUG 12, 1963.

LOWEST WATER LEVEL 217.81 FEET BELOW LAND SURFACE DATUM SEP 12, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

FEB 12, 1979 213.45 ; MAR 20, 1979 215.19 ; JUN 13, 1979 215.04 ; SEP 12, 1979 217.81 .

WELL 31S [illegible] 02CDD 01   SITE NUMBER 372227101121501

31-36W-2CDD. MRS. EARL CLARK. DRILLED, ARTESIN IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 410 FEET, DIAMETER 16 INCHES. MEASURING POINT, LOWER EDGE OF CUT-OUT ON EAST SIDE OF STEEL PUMP BASE, 1.00 FOOT ABOVE LSD. G = MEASURED BY K.S.B.A. MP CHANGED TO BOLT HOLE, NORTHEAST CORNER, 0.2 FOOT ABOVE LSD, JANUARY 1974. MP CHANGED TO LAND SURFACE, JANUARY 1976.

ALTITUDE OF LAND SURFACE 3019. FEET

RECORDS AVAILABLE 1958 - 1960, 1963 TO CURRENT YEAR.

HIGHEST WATER LEVEL 140.50 FEET BELOW LAND SURFACE DATUM MAR 21, 1960.

LOWEST WATER LEVEL 174.63 FEET BELOW LAND SURFACE DATUM AUG 17, 1966.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

FEB 12, 1979 171.36 ; MAR 20, 1979 171.00 ; JUN 12, 1979 171.95 .

STEVENS COUNTY -- CONTINUED

WELL 31S 37W 22BCC 01 SITE NUMBER 372016101201201

31-37W-22BCC. WALTER CHOITS, DRILLED, WATER-TABLE DOMESTIC WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION, DEPTH 250 FEET, DIAMETER 6 INCHES, MEASURING POINT, TOP OF SLIT IN CASING, 0.90 FOOT ABOVE LSD. G = MEASURED BY OWNER AND K.S.B.A.

ALTITUDE OF LAND SURFACE 3096. FEET

RECORDS AVAILABLE 1956 TO CURRENT YEAR.

HIGHEST WATER LEVEL 121.67 FEET BELOW LAND SURFACE DATUM JAN 14, 1963.

LOWEST WATER LEVEL 175.03 FEET BELOW LAND SURFACE DATUM SEP 12, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

MAR 20, 1979 169.91 R; JUN 12, 1979 174.41 ; SEP 12, 1979 175.03 .

WELL 32S 35W 08DDD 01 SITE NUMBER 371621101082601

32-35W-8DDD. ARCHIE COOPER. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION, DEPTH 495 FEET, DIAMETER 16 INCHES, MEASURING POINT, HOLE IN PUMP BASE, 0.8 FOOT ABOVE LSD. REPLACEMENT WELL FOR 32-35W-2CBB.

ALTITUDE OF LAND SURFACE 3012. FEET

RECORDS AVAILABLE 1970 TO CURRENT YEAR.

HIGHEST WATER LEVEL 127.13 FEET BELOW LAND SURFACE DATUM JAN 19, 1970.

LOWEST WATER LEVEL 148.66 FEET BELOW LAND SURFACE DATUM JUN 12, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

FEB 12, 1979 146.56 ; JUN 12, 1979 148.66 .

WELL 33S 36W 26DDD 01 SITE NUMBER 370831101114001

33-36W-26DDD. R. O. HEGER, DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 360 FEET, DIAMETER 16 INCHES, MEASURING POINT, TOP EDGE OF HOLE IN PUMP BASE, 0.5 FOOT ABOVE LSD. MEASURED BY K.S.B.A. DISCONTINUED 1979.

ALTITUDE OF LAND SURFACE 3032. FEET

RECORDS AVAILABLE 1942, 1944 - 1947, 1953 TO CURRENT YEAR.

HIGHEST WATER LEVEL 118.73 FEET BELOW LAND SURFACE DATUM JAN 18, 1966.

LOWEST WATER LEVEL 163.27 FEET BELOW LAND SURFACE DATUM SEP 09, 1976.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 12, 1979 136.46 .

WELL 33S 38W 20DDB 01 SITE NUMBER 370931101280201

33-38W-20DDB. JOHN R. SLEMP. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION, DEPTH 405 FEET, DIAMETER 16 INCHES, MEASURING POINT, LOWER WEST SIDE OF PUMP, 1.10 FEET ABOVE LSD. MP CHANGED TO TOP OF CASING, AT LAND SURFACE, MARCH 1976. G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 3191. FEET

RECORDS AVAILABLE 1959 TO CURRENT YEAR.

HIGHEST WATER LEVEL 119.97 FEET BELOW LAND SURFACE DATUM APR 08, 1970.

LOWEST WATER LEVEL 161.30 FEET BELOW LAND SURFACE DATUM APR 16, 1968.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

FEB 02, 1979 143.26 ; JUN 12, 1979 144.56 ; SEP 12, 1979 156.53 .

WELL 34S 35W 18BCA 01 SITE NUMBER 370533101101801

34-35W-18BCA. U.S.G.S. AND K.G.S. DRILLED, WATER-TABLE OBSERVATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION, DEPTH 470 FEET, DIAMETER 1.25 INCHES, MEASURING POINT, TOP OF PIPE, 3.0 FEET ABOVE LSD.

ALTITUDE OF LAND SURFACE 3035. FEET

RECORDS AVAILABLE 1975 TO CURRENT YEAR.

HIGHEST WATER LEVEL 130.19 FEET BELOW LAND SURFACE DATUM JAN 21, 1975.

LOWEST WATER LEVEL 212.25 FEET BELOW LAND SURFACE DATUM SEP 11, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

FEB 12, 1979 145.56 ; MAR 20, 1979 145.11 ; SEP 12, 1979 211.01 .

STEVENS COUNTY -- CONTINUED

WELL 34S 38W 02CDB 01 SITE NUMBER 370654101252001

34-38W-2CDB. E. HOBER. DRILLED, WATER-TABLE IRRIGATION WELL IN UNDIFFERENTIATED PLEISTOCENE DEPOSITS AND OGALLALA FORMATION. DEPTH 607 FEET. MEASURING POINT, BASE OF CUT-OUT, EAST SIDE OF PUMP, 0.6 FOOT ABOVE LSD. MEASURED BY K.S.B.A. MP CHANGED TO HOLE AT BASE OF PUMP, EAST SIDE, AT LAND SURFACE, JANUARY 23, 1974.

ALTITUDE OF LAND SURFACE 3197. FEET

RECORDS AVAILABLE 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 131.92 FEET BELOW LAND SURFACE DATUM JAN 19, 1971.

LOWEST WATER LEVEL 152.97 FEET BELOW LAND SURFACE DATUM SEP 19, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

MAR 20, 1979 136.53 ; JUN 12, 1979 147.85 .

WABAUNSEE COUNTY

WELL 10S 10E 15DCC 01 SITE NUMBER 391029096171301

10-10E-15DCC. K.G.S. DRILLED, WATER-TABLE OBSERVATION WELL IN ALLUVIUM. DEPTH 39 FEET, DIAMETER 2 INCHES. MEASURING POINT, TOP OF PIPE, 1.0 FOOT ABOVE LSD. G - MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 971. FEET

RECORDS AVAILABLE 1966 TO CURRENT YEAR.

HIGHEST WATER LEVEL 5.65 FEET BELOW LAND SURFACE DATUM DEC 20, 1973.

LOWEST WATER LEVEL 20.58 FEET BELOW LAND SURFACE DATUM MAR 17, 1976.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 07, 1978 14.53 ; MAR 08, 1979 13.95 ; JUN 05, 1979 11.66 ; SEP 14, 1979 13.25 .

WELL 10S 12E 29ADD 01 SITE NUMBER 390909096053101

10-12E-29ADD. K.G.S. DRILLED, WATER-TABLE OBSERVATION WELL IN ALLUVIUM AND NEWMAN TERRACE DEPOSITS. DEPTH NOT REPORTED, DIAMETER 2 INCHES. MEASURING POINT, TOP OF CASING, 2.5 FEET ABOVE LSD. MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 944.4 FEET

RECORDS AVAILABLE 1974 TO CURRENT YEAR.

HIGHEST WATER LEVEL 12.75 FEET BELOW LAND SURFACE DATUM JUN 03, 1976.

LOWEST WATER LEVEL 20.84 FEET BELOW LAND SURFACE DATUM DEC 08, 1976.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DEC 07, 1978 18.17 ; MAR 08, 1979 14.8 ; JUN 05, 1979 16.15 ; SEP 14, 1979 19.42 .

WICHITA COUNTY

WELL 16S 35W 20CCC 01 SITE NUMBER 383037101130401

16-35W-20CCC. E. L. MILLER. DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FORMATION. DEPTH 189 FEET, DIAMETER 18 INCHES. MEASURING POINT, HOLE IN BASE OF PUMP, 0.5 FOOT ABOVE LSD. G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 3231. FEET

RECORDS AVAILABLE 1950 - 1951, 1953 TO CURRENT YEAR.

HIGHEST WATER LEVEL 103.24 FEET BELOW LAND SURFACE DATUM MAY 07, 1951.

LOWEST WATER LEVEL 157.86 FEET BELOW LAND SURFACE DATUM MAR 27, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 30, 1979 154.16 ; MAR 19, 1979 153.21 ; JUN 19, 1979 156.56 .

WICHITA COUNTY -- CONTINUED

WELL 16S 37W 13BBC 01 SITE NUMBER 384008101215301

16-37W-13BBC, DEAN WIEGENS, DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FORMATION, DEPTH 175 FEET, DIAMETER 18 INCHES, MEASURING POINT, HOLE IN WEST SIDE OF PUMP BASE, AT LAND SURFACE. G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 3351. FEET

RECORDS AVAILABLE 1950 - 1951, 1953 TO CURRENT YEAR.

HIGHEST WATER LEVEL 77.54 FEET BELOW LAND SURFACE DATUM NOV 16, 1950.

LOWEST WATER LEVEL 126.50 FEET BELOW LAND SURFACE DATUM SEP 16, 1975.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 29, 1979 124.08 ; MAR 14, 1979 124.21 ; JUN 19, 1979 124.49 .

WELL 16S 37W 30ACB 01

16-37W-30ACB, H. E. MEYERS, DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FORMATION, DEPTH 220 FEET, DIAMETER 18 INCHES, MEASURING POINT, HOLE IN WEST SIDE OF PUMP BASE, 0.3 FOOT ABOVE LSD. G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 3400. FEET

RECORDS AVAILABLE 1951, 1959 TO CURRENT YEAR.

HIGHEST WATER LEVEL 80.94 FEET BELOW LAND SURFACE DATUM MAR 29, 1951.

LOWEST WATER LEVEL 155.88 FEET BELOW LAND SURFACE DATUM JUN 28, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 29, 1979 148.15 ; MAR 14, 1979 147.13 ; JUN 19, 1979 146.67 ; SEP 10, 1979 153.97 .

WELL 16S 38W 10ABB 01 SITE NUMBER 384106101380501

16-38W-10ABB, MARGARET BUEHLER, DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FORMATION, DEPTH 210 FEET, DIAMETER 16 INCHES, MEASURING POINT, HOLE IN HOUSING EAST SIDE OF PUMP, 1.0 FOOT ABOVE LSD. G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 3458. FEET

RECORDS AVAILABLE 1951, 1965 TO CURRENT YEAR.

HIGHEST WATER LEVEL 77.56 FEET BELOW LAND SURFACE DATUM MAR 29, 1951.

LOWEST WATER LEVEL 145.11 FEET BELOW LAND SURFACE DATUM SEP 26, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 29, 1979 136.78 ; MAR 14, 1979 139.57 ; SEP 10, 1979 139.83 .

WELL 16S 38W 16ACC 01 SITE NUMBER 383954101311001

16-38W-16ACC, V. WATT, DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FORMATION, DEPTH 205 FEET, DIAMETER 16 INCHES, MEASURING POINT, BOLT-HOLE ON NORTHWEST SIDE, 1.0 FOOT ABOVE LSD. G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 3452. FEET

RECORDS AVAILABLE 1951, 1965 TO CURRENT YEAR.

HIGHEST WATER LEVEL 72.75 FEET BELOW LAND SURFACE DATUM MAR 29, 1951.

LOWEST WATER LEVEL 130.15 FEET BELOW LAND SURFACE DATUM JAN 29, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 29, 1979 130.15 .

WICHITA COUNTY -- CONTINUED

WELL 17S 38W 21BBB 01 SITE NUMBER 383406101314401

17-38W-21BBB. G. + F. BAUCK. DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FORMATION. DEPTH 165 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN EAST SIDE OF BASE, 0.5 FOOT ABOVE LSD. MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 3446. FEET

RECORDS AVAILABLE 1964 TO CURRENT YEAR.

HIGHEST WATER LEVEL 90.00 FEET BELOW LAND SURFACE DATUM NOV 10, 1964.

LOWEST WATER LEVEL 123.52 FEET BELOW LAND SURFACE DATUM SEP 27, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 29, 1979 119.9 ; MAR 15, 1979 120.33 .

WELL 18S 35W 14DCD 01 SITE NUMBER 382902101090301

18-35W-14DCD. P. E. + F. W. KRAUSE. DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FORMATION. DEPTH 139 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN NORTH SIDE OF PUMP BASE, 0.4 FOOT ABOVE LSD. G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 3171. FEET

RECORDS AVAILABLE 1951, 1958 - 1966, 1968 TO CURRENT YEAR.

HIGHEST WATER LEVEL 79.74 FEET BELOW LAND SURFACE DATUM APR 11, 1951.

LOWEST WATER LEVEL 115.32 FEET BELOW LAND SURFACE DATUM MAR 14, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 29, 1979 111.1 ; MAR 26, 1979 112. ; JUN 21, 1979 111.79 ; SEP 11, 1979 114.46 .

WELL 18S 37W 21BBB 01 SITE NUMBER 382652101250901

18-37W-21BBB. RUTH GIBSON. DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FORMATION. DIAMETER 16 INCHES, DEPTH 195 FEET. MEASURING POINT, EDGE OF 1-INCH HOLE IN SOUTHWEST SIDE OF PUMP BASE, 0.30 FOOT ABOVE LSD. G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 3360. FEET

RECORDS AVAILABLE 1962 TO CURRENT YEAR.

HIGHEST WATER LEVEL 98.26 FEET BELOW LAND SURFACE DATUM FEB 28, 1962.

LOWEST WATER LEVEL 154.33 FEET BELOW LAND SURFACE DATUM JAN 17, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 29, 1979 152.78 ; MAR 15, 1979 149.12 ; JUN 21, 1979 150.39 .

WELL 18S 38W 20ACC 02 SITE NUMBER 382631101321702

18-38W-20ACC2. J. A. REIMER. DRILLED, WATER-TABLE IRRIGATION WELL IN OGALLALA FORMATION. DEPTH 169 FEET, DIAMETER 16 INCHES. MEASURING POINT, HOLE IN EAST SIDE OF PUMP BASE, 0.3 FOOT ABOVE LSD. G = MEASURED BY K.S.B.A.

ALTITUDE OF LAND SURFACE 3440. FEET

RECORDS AVAILABLE 1951, 1965 TO CURRENT YEAR.

HIGHEST WATER LEVEL 98.20 FEET BELOW LAND SURFACE DATUM MAR 21, 1951.

LOWEST WATER LEVEL 138.74 FEET BELOW LAND SURFACE DATUM DEC 11, 1974.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

JAN 29, 1979 136.78 ; MAR 15, 1979 128.06 .

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

ALLEN COUNTY

LOCAL IDENT- I- FIER	STATION NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE OF SAMPLE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	HARD- NESS (MG/L AS CACO3)
24S 17E 26BBD 01	375608095310801	50	--	79-06-21	295	7.3	19.5	1.4	86
24S 20E 35CDD 01	375434095111301	30	323IOLA	79-06-21	497	6.8	17.0	1.2	180
26S 18E 13CBC 01	374654095234701	120	323IOLA	79-06-21	1410	7.0	17.5	.50	470

LOCAL IDENT- I- FIER	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)
24S 17E 26BBD 01	18	29	2.8	11	22	.5	.9	80	0	66
24S 20E 35CDD 01	80	62	5.2	16	16	.5	8.0	120	0	98
26S 18E 13CBC 01	220	170	13	49	17	1.0	39	290	0	238

LOCAL IDENT- I- FIER	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
24S 17E 26BBD 01	6.4	17	11	.1	2.0	133	134	4.5	20	.09
24S 20E 35CDD 01	30	46	37	.1	6.0	276	276	8.3	37	.02
26S 18E 13CBC 01	46	72	140	.2	9.0	769	772	31	137	.11

LOCAL IDENT- I- FIER	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
24S 17E 26BBD 01	0	100	1	0	10	0	0	20	.0	0
24S 20E 35CDD 01	--	--	--	--	--	--	--	--	--	--
26S 18E 13CBC 01	--	--	--	--	--	--	--	--	--	--

LOCAL IDENT- I- FIER	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, DIS- SOLVED (UG/L AS ZN)	ALDRIN, TOTAL (UG/L)	ATRA- ZINE, TOTAL (UG/L)	CHLOR- DANE, TOTAL (UG/L)	O,P' DDT, TOTAL (UG/L)	P,P' DDT, TOTAL (UG/L)	DI- ELDRIN TOTAL (UG/L)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)	RADIUM 226, SUS- PENDED TOTAL (PCI/L)
24S 17E 26BBD 01	0	880	--	--	--	--	--	--	--	--
24S 20E 35CDD 01	--	--	--	--	--	--	--	--	--	--
26S 18E 13CBC 01	--	--	--	--	--	--	--	--	--	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

ANDERSON COUNTY

LOCAL IDENT- I- FIER	STATION NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE OF SAMPLE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	HARD- NESS (MG/L AS CACO3)
20S 20E 05ADD 01	382025095125101	82	112ALVM	79-05-16	592	6.2	16.0	.90	270
21S 18E 05DCA 02	381455095265902	175	112ALVM	79-05-16	272	6.4	17.0	.70	110
22S 20E 19AAA 01	380830095144301	23	323VILS	79-06-18	4380	7.1	15.0	.50	1500

LOCAL IDENT- I- FIER	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)
20S 20E 05ADD 01	60	96	7.9	13	9	.3	.4	260	0	213
21S 18E 05DCA 02	24	35	6.0	8.8	15	.4	.3	110	0	90
22S 20E 19AAA 01	1200	390	120	310	31	3.5	5.0	270	0	221

LOCAL IDENT- I- FIER	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
20S 20E 05ADD 01	262	43	19	.1	--	--	--	9.4	42	.01
21S 18E 05DCA 02	70	28	7.0	.2	--	--	--	2.2	9.7	.01
22S 20E 19AAA 01	34	1120	220	.8	14	--	2800	110	487	.10

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

BARBER COUNTY

LOCAL IDENT-I-FIER	STATION NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO-LOGIC UNIT	DATE OF SAMPLE	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	HARD-NESS (MG/L AS CACO3)
30S 11W 34BBC 01	372341098310601	60	112PLSC	79-09-20	395	7.6	17.5	1.0	170
32S 12W 05DBA 01	371716098384201	--	--	79-09-20	1200	7.5	18.0	28	490
33S 11W 28CBB 01	370837098314201	29	112ALVM	79-09-20	18000	7.5	16.5	11	1700
33S 11W 33ABB 01	370811098310901	29	--	79-04-26	1470	7.3	17.5	.20	760
34S 10W 16CAB 01	370507098245401	90	317NPPL	79-04-20	980	7.3	12.0	1.0	440
35S 12W 08BAC 01	370108098390101	120	317NPPL	79-04-20	850	7.5	16.0	1.0	400

LOCAL IDENT-I-	HARD-NESS, NONCAR-BONATE CACO3)	CALCIUM DIS-SOLVED AS CA)	MAGNE-SIUM, DIS-SOLVED AS MG)	SODIUM, DIS-SOLVED AS NA)	PERCENT	SODIUM AD-SORP-TION	POTAS-SIUM, DIS-SOLVED AS K)	BICAR-BONATE (MG/L HCO3)	CAR-BONATE AS CO3)	ALKA-LINITY (MG/L CACO3)
30S 11W 34BBC 01	10	62	4.2	16	17	.5	1.6	200	0	164
32S 12W 05DBA 01	310	140	31	60	21	1.2	3.0	220	0	180
33S 11W 28CBB 01	1400	400	180	3500	81	37	9.0	330	0	271
33S 11W 33ABB 01	420	200	64	130	27	2.0	14	410	0	336
34S 10W 16CAB 01	140	96	50	64	24	1.3	5.0	360	0	295
35S 12W 08BAC 01	180	88	45	47	20	1.0	3.0	270	0	221

LOCAL IDENT-I-FIER	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)
30S 11W 34BBC 01	8.0	13	15	.4	22	254	255	5.0	22	.04
32S 12W 05DBA 01	11	330	79	.6	14	768	766	.00	.00	.00
33S 11W 28CBB 01	17	1600	5400	1.3	13	--	11300	.20	.90	.12
33S 11W 33ABB 01	33	170	380	.4	17	--	1220	8.8	39	.36
34S 10W 16CAB 01	29	160	54	.5	18	684	678	12	53	.12
35S 12W 08BAC 01	14	220	45	.6	16	602	601	.80	3.5	.01

LOCAL IDENT-I-FIER	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)
30S 11W 34BBC 01	--	--	--	--	--	--	--	--	--	--
32S 12W 05DBA 01	--	--	--	--	--	--	--	--	--	--
33S 11W 28CBB 01	--	--	--	--	--	--	--	--	--	--
33S 11W 33ABB 01	10	500	0	0	0	20	0	80	.0	5
34S 10W 16CAB 01	--	--	--	--	--	--	--	--	--	--
35S 12W 08BAC 01	--	--	--	--	--	--	--	--	--	--

LOCAL IDENT-I-FIER	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)	ALDRIN, TOTAL (UG/L)	ATRA-ZINE, TOTAL (UG/L)	CHLOR-DANE, TOTAL (UG/L)	O,P' DDT, TOTAL (UG/L)	P,P' DDT, TOTAL (UG/L)	DI-ELDRIN TOTAL (UG/L)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)	RADIUM 226, SUS-PENDED TOTAL (PCI/L)
30S 11W 34BBC 01	--	--	--	--	--	--	--	--	--	--
32S 12W 05DBA 01	--	--	--	--	--	--	--	--	--	--
33S 11W 28CBB 01	--	--	--	--	--	--	--	--	--	--
33S 11W 33ABB 01	0	330	--	--	--	--	--	--	--	--
34S 10W 16CAB 01	--	--	--	--	--	--	--	--	--	--
35S 12W 08BAC 01	--	--	--	--	--	--	--	--	--	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

BARTON COUNTY

LOCAL IDENT-I-FIER	STATION NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO-LOGIC UNIT	DATE OF SAMPLE	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	HARD-NESS (MG/L AS CACO3)
18S 15W 30ACA 01	382737099011101	85	211DKOT	79-06-30	1500	7.4	16.0	11	410
19S 12W 05DDC 01	382519098400201	60	211DKOT	79-08-01	580	7.5	21.5	7.0	210
19S 12W 13ADA 01	382407098352901	34	112PLSC	79-08-01	2100	7.6	17.0	1.0	410
20S 13W 30CAB 01	381656098481801	66	112PLSC	79-08-01	990	7.4	15.5	.75	350
20S 14W 27BCA 01	381708098513901	80	112PLSC	79-08-01	670	7.7	26.5	1.2	250

LOCAL IDENT-I-FIER	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)
18S 15W 30ACA 01	120	140	16	130	40	2.8	7.0	380	0	312
19S 12W 05DDC 01	0	72	6.9	43	31	1.3	2.0	310	0	254
19S 12W 13ADA 01	160	130	18	260	58	5.7	3.0	330	0	271
20S 13W 30CAB 01	140	120	13	57	26	1.3	4.0	270	0	221
20S 14W 27BCA 01	20	78	13	44	28	1.2	3.0	280	0	230

LOCAL IDENT-I-FIER	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)
18S 15W 30ACA 01	24	79	220	.5	26	797	806	.10	.40	.07
19S 12W 05DDC 01	16	12	31	.4	26	350	350	.90	4.0	.02
19S 12W 13ADA 01	13	110	430	.4	24	--	1160	9.2	41	.05
20S 13W 30CAB 01	17	87	120	.4	24	572	581	5.2	23	.04
20S 14W 27BCA 01	8.9	59	33	.8	21	415	416	5.9	26	.05

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

BOURBON COUNTY

LOCAL IDENT- I- FIER	STATION NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE OF SAMPLE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	HARD- NESS (MG/L AS CACO3)
23S 22E 29AAA 01	380127095003501	18	323GLBG	79-06-18	1110	7.1	19.0	.20	470
24S 23E 04DB 01	375910094530601	18	323PLSN	79-06-18	530	7.3	16.0	1.0	210
26S 24E 29BBB 01	374537094485201	36	325LBTT	79-06-18	218	7.0	17.5	28	80
26S 25E 35CCB 01	374405094385801	30	325CHRK	79-06-18	592	6.8	15.0	.40	220

LOCAL IDENT- I- FIER	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)
23S 22E 29AAA 01	170	180	7.0	13	6	.3	.2	370	0	303
24S 23E 04DB 01	92	75	5.1	6.6	6	.2	3.0	140	0	115
26S 24E 29BBB 01	0	30	1.3	1.0	3	.0	2.0	100	0	82
26S 25E 35CCB 01	100	75	8.0	6.9	6	.2	.4	150	0	123

LOCAL IDENT- I- FIER	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
23S 22E 29AAA 01	47	160	17	.3	10	572	581	2.6	12	.00
24S 23E 04DB 01	11	72	21	.9	5.0	268	267	2.2	9.7	.00
26S 24E 29BBB 01	16	5.0	4.0	.2	4.0	98	97	.00	.00	.03
26S 25E 35CCB 01	38	66	13	.5	9.0	290	292	8.9	39	.00

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

BUTLER COUNTY

LOCAL IDENT-I-FIER	STATION NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO-LOGIC UNIT	DATE OF SAMPLE	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	HARD-NESS (MG/L AS CACO3)
23S 07E 10BBB 01	380416096394301	77	317ORNS	79-07-26	810	6.5	10.5	1.2	320
24S 04E 29DBA 02	375558097003902	76	319CHSE	79-07-26	3050	7.6	15.0	1.5	1400
25S 06E 23DDB 01	375125096441101	90	317ORNS	79-04-25	700	6.9	15.5	3.0	360
		90	317ORNS	79-07-26	815	7.1	17.5	8.0	370
26S 04E 08DCD 01	374749097004401	125	310PRMN	79-07-26	2100	6.5	15.0	1.0	700
27S 04E 22BAC 01	374130096585601	30	317ORNS	79-07-25	760	7.7	19.0	1.0	400
28S 05E 32CDC 01	373353096543101	92	317ORNS	79-04-25	990	7.0	18.0	.20	390
		92	317ORNS	79-07-25	1040	7.3	20.5	1.0	360
29S 07E 07DDA 01	373212096414901	240	319CHSE	79-04-25	510	7.0	18.0	.00	260
		240	319CHSE	79-07-25	580	7.6	17.5	1.0	260

LOCAL IDENT-I-FIER	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)
23S 07E 10BBB 01	0	74	32	49	25	1.2	.9	380	0	312
24S 04E 29DBA 02	1100	420	87	160	20	1.9	3.0	380	0	312
25S 06E 23DDB 01	64	120	16	20	11	.5	2.0	360	0	295
	72	120	19	21	11	.5	2.0	370	0	303
26S 04E 08DCD 01	440	180	80	190	35	3.0	2.0	440	0	361
27S 04E 22BAC 01	34	110	30	39	18	.9	.7	440	0	361
28S 05E 32CDC 01	52	120	25	87	32	1.9	.8	410	0	336
	31	110	22	86	34	2.0	.9	410	0	336
29S 07E 07DDA 01	0	85	12	33	22	.9	.4	360	0	295
	0	86	11	32	21	.9	.6	370	0	303

LOCAL IDENT-I-FIER	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)
23S 07E 10BBB 01	192	24	47	.5	16	453	484	3.1	14	--
24S 04E 29DBA 02	15	1090	210	.9	14	--	2170	1.5	6.6	.01
25S 06E 23DDB 01	73	37	23	.4	11	463	465	13	58	.00
	47	35	30	.3	11	469	474	12	53	.01
26S 04E 08DCD 01	223	350	320	.7	19	--	1300	6.2	27	.09
27S 04E 22BAC 01	14	50	43	.3	17	517	516	2.0	8.9	.03
28S 05E 32CDC 01	66	96	68	.6	20	668	673	12	53	.20
	33	89	63	.4	20	640	642	11	49	.02
29S 07E 07DDA 01	58	13	10	.2	15	359	355	2.1	9.3	.00
	15	14	10	.0	15	359	361	2.3	10	.02

LOCAL IDENT-I-FIER	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	CUPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)
25S 06E 23DDB 01	0	300	0	0	0	60	0	20	.0	1
26S 04E 08DCD 01	0	100	0	10	20	20	0	10	1.0	3
28S 05E 32CDC 01	0	200	0	0	10	20	0	0	.0	4
29S 07E 07DDA 01	0	200	0	0	10	10	0	0	.0	0

LOCAL IDENT-I-FIER	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)	ALDRIN, TOTAL (UG/L)	ATRA-ZINE, TOTAL (UG/L)	CHLOR-DANE, TOTAL (UG/L)	O,P' DDT, TOTAL (UG/L)	P,P' DDT, TOTAL (UG/L)	DI-ELDRIN TOTAL (UG/L)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)	RADIUM 226, SUS-PENDED TOTAL (PCI/L)
25S 06E 23DDB 01	0	120	--	--	--	--	--	--	--	--
26S 04E 08DCD 01	10	70	ND	ND	ND	ND	ND	ND	E7.5	E.8
28S 05E 32CDC 01	0	60	--	--	--	--	--	--	--	--
29S 07E 07DDA 01	0	30	--	--	--	--	--	--	--	--

LOCAL IDENT-I-FIER	CARBON, ORGANIC TOTAL (MG/L AS C)	ENDRIN, TOTAL (UG/L)	LINDANE TOTAL (UG/L)	METH-OXY-CHLOR, TOTAL (UG/L)	PCB, TOTAL (UG/L)	TOX-APHENE, TOTAL (UG/L)	DACTHAL TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)
26S 04E 08DCD 01	2.2	ND	ND	ND	ND	ND	ND	ND	ND	ND

ND NOT DETECTED; DETECTION LIMIT IS <0.4 UG/L.
E ESTIMATED VALUE.

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

CHASE COUNTY

LOCAL IDENT- I- FIER	STATION NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE OF SAMPLE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	HARD- NESS (MG/L AS CACO3)
19S 09E 26DAA 01	382208096222701	28	319CCGV	79-04-26	1260	7.4	18.5	.30	680

LOCAL IDENT- I- FIER	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)
19S 09E 26DAA 01	378	180	56	91	23	1.5	1.0	370	0	303

LOCAL IDENT- I- FIER	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
19S 09E 26DAA 01	24	190	110	.5	13	--	1120	65	288	.01

LOCAL IDENT- I- FIER	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
19S 09E 26DAA 01	10	100	0	0	0	10	0	0	.0	1

LOCAL IDENT- I- FIER	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, DIS- SOLVED (UG/L AS ZN)	ALDRIN, TOTAL (UG/L)	ATRA- ZINE, TOTAL (UG/L)	CHLOR- DANE, TOTAL (UG/L)	O,P' DDT, TOTAL (UG/L)	P,P' DDT, TOTAL (UG/L)	DI- ELDRIN TOTAL (UG/L)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)	RADIUM 226, SUS- PENDED TOTAL (PCI/L)
19S 09E 26DAA 01	0	0	--	--	--	--	--	--	--	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

CHAUTAUQUA COUNTY

LOCAL IDENT- I- FIER	STATION NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE OF SAMPLE	SPE- CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	HARD- NESS (MG/L AS CACO3)
32S 10E 19DDD 01	371442096204001	236	322ELGN	79-04-24	4200	8.5	21.0	.30	32
34S 10E 16DDC 01	370508096183701	297	322SMNN	79-06-13	1590	9.0	19.0	1.3	4
35S 13E 17BBA 01	370030096005101	78	322DGLS	79-06-13	265	5.9	19.0	.50	76

LOCAL IDENT- I- FIER	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)
32S 10E 19DDD 01	0	8.0	3.0	1000	98	77	3.0	720	10	607
34S 10E 16DDC 01	0	1.6	.0	290	99	63	.8	620	39	573
35S 13E 17BBA 01	56	19	7.0	17	32	.8	.6	20	0	16

LOCAL IDENT- I- FIER	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
32S 10E 19DDD 01	3.7	150	1100	.2	7.0	--	2640	1.3	5.8	.00
34S 10E 16DDC 01	1.1	66	15	1.8	9.0	725	729	.10	.40	.02
35S 13E 17BBA 01	40	10	34	.1	14	164	162	9.6	42	.00

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

CHEROKEE COUNTY

LOCAL IDENT- I- FIER	STATION NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE OF SAMPLE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	HARD- NESS (MG/L AS CACO3)
32S 25E 07AAA 01	371644094422601	301	330MSSP	79-06-19	1860	6.7	17.5	4.6	780
33S 22E 19DAA 01	370922095015301	18	112ALVM	79-06-20	348	6.7	17.0	.40	110
34S 23E 02ABA 01	370708094511201	26	325BJCK	79-06-20	174	5.8	18.0	.30	44
35S 25E 04CCC 01	370105094412101	183	338RSPG	79-06-19	342	7.1	18.0	.20	180

LOCAL IDENT- I- FIER	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)
32S 25E 07AAA 01	440	170	85	170	32	2.7	15	400	0	328
33S 22E 19DAA 01	40	37	4.8	15	22	.6	3.0	85	0	70
34S 23E 02ABA 01	32	11	4.0	5.4	20	.4	2.0	15	0	12
35S 25E 04CCC 01	8	69	2.9	5.6	6	.2	.8	220	0	180

LOCAL IDENT- I- FIER	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
32S 25E 07AAA 01	128	820	11	.8	9.0	--	1480	.60	2.7	.00
33S 22E 19DAA 01	27	29	17	.1	16	204	204	9.1	40	.01
34S 23E 02ABA 01	38	38	7.0	.2	14	97	98	2.0	8.9	.04
35S 25E 04CCC 01	28	15	10	.1	9.0	220	223	.50	2.2	.02

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

CLARK COUNTY

LOCAL IDENT-I-FIER	STATION NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO-LOGIC UNIT	DATE OF SAMPLE	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	HARD-NESS (MG/L AS CACO3)
30S 23W 18DBB 01	372547099522801	--	--	79-09-13	485	7.6	15.0	.20	230
31S 23W 07BBA 01	372154099520401	140	121OGLL	79-09-13	500	7.5	16.0	.10	160
32S 23W 26DDD 01	371319099464601	55	112PLSC	79-09-13	2700	7.9	17.0	.80	1200
34S 25W 36BAD 01	370245099591001	60	112ALVM	79-09-13	3800	7.4	16.0	10	2200

LOCAL IDENT-I-FIER	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)
30S 23W 18DBB 01	1	67	15	13	11	.4	3.0	280	0	230
31S 23W 07BBA 01	0	42	13	47	38	1.6	4.0	270	0	221
32S 23W 26DDD 01	930	140	210	190	25	2.4	10	450	0	369
34S 25W 36BAD 01	2000	480	230	210	17	2.0	10	230	0	189

LOCAL IDENT-I-FIER	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)
30S 23W 18DBB 01	11	9.0	13	.6	46	318	319	3.2	14	--
31S 23W 07BBA 01	14	13	23	.9	26	307	308	1.4	6.2	--
32S 23W 26DDD 01	9.1	880	230	.9	35	--	1990	15	66	--
34S 25W 36BAD 01	15	2020	240	1.3	41	--	3380	11	49	--

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

COFFEY COUNTY

LOCAL IDENT-I-FIER	STATION NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO-LOGIC UNIT	DATE OF SAMPLE	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	HARD-NESS (MG/L AS CACO3)
19S 15E 13AAB 01	382417095415201	25	322GMHN	79-05-16	1140	6.6	13.5	1.2	420
21S 15E 16CDD 01	381305095460801	31	112WBCS	79-06-11	1360	7.	17.5	.40	530

LOCAL IDENT-I-FIER	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)
19S 15E 13AAB 01	300	150	13	25	11	.5	2.0	150	0	123
21S 15E 16CDD 01	140	170	25	110	31	2.1	1.6	470	0	385

LOCAL IDENT-I-FIER	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)
19S 15E 13AAB 01	60	120	32	.4	--	--	--	54	239	.02
21S 15E 16CDD 01	47	390	41	.5	.5	927	906	5.9	26	.03

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

COMANCHE COUNTY

LOCAL IDENT-I-FIER	STATION NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO-LOGIC UNIT	DATE OF SAMPLE	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	HARD-NESS (MG/L AS CACO3)
31S 19W 24AAB 01	372011099195001	--	121OGLL	79-09-13	310	7.7	15.5	.70	130
32S 19W 12DA 01	371614099194601	148	317NPPL	79-09-13	290	7.7	16.0	.20	120
32S 20W 18AAA 01	371547099313601	43	112ALVM	79-09-13	828	7.6	15.0	.40	360
33S 19W 36DAA 01	370738099194101	--	317NPPL	79-09-13	640	7.5	16.0	1.2	300
33S 20W 03BAC 01	371213099290201	100	112ALVM	79-09-13	645	7.6	16.0	.60	280

LOCAL IDENT-I-FIER	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)
31S 19W 24AAB 01	0	45	3.8	13	18	.5	2.0	470	0	385
32S 19W 12DA 01	0	40	5.9	12	17	.5	3.0	160	0	131
32S 20W 18AAA 01	150	91	33	31	16	.7	3.0	260	0	213
33S 19W 36DAA 01	68	64	35	14	9	.3	2.0	290	0	238
33S 20W 03BAC 01	48	80	20	32	20	.8	3.0	280	0	230

LOCAL IDENT-I-FIER	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)
31S 19W 24AAB 01	15	8.0	9.0	.6	21	190	340	1.4	6.2	--
32S 19W 12DA 01	5.1	10	7.0	.5	25	188	188	1.3	5.8	--
32S 20W 18AAA 01	18	160	38	.6	24	518	513	1.9	8.4	--
33S 19W 36DAA 01	15	18	48	.6	29	374	376	5.0	22	--
33S 20W 03BAC 01	11	83	22	.7	22	486	484	.70	3.1	--

LOCAL IDENT-I-FIER	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)
31S 19W 24AAB 01	--	--	--	--	--	--	--	--	--	--
32S 19W 12DA 01	--	--	--	--	--	--	--	--	--	--
32S 20W 18AAA 01	--	--	--	--	--	--	--	--	--	--
33S 19W 36DAA 01	--	--	--	--	--	--	--	--	--	--
33S 20W 03BAC 01	0	200	2	0	10	40	0	120	.0	2

LOCAL IDENT-I-FIER	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)	ALDRIN, TOTAL (UG/L)	ATRA-ZINE, TOTAL (UG/L)	CHLOR-DANE, TOTAL (UG/L)	O,P' DDT, TOTAL (UG/L)	P,P' DDT, TOTAL (UG/L)	DI-ELDRIN TOTAL (UG/L)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)	RADIUM 226, SUS-PENDED TOTAL (PCI/L)
31S 19W 24AAB 01	--	--	--	--	--	--	--	--	--	--
32S 19W 12DA 01	--	--	--	--	--	--	--	--	--	--
32S 20W 18AAA 01	--	--	--	--	--	--	--	--	--	--
33S 19W 36DAA 01	--	--	--	--	--	--	--	--	--	--
33S 20W 03BAC 01	0	40	ND	ND	ND	ND	ND	ND	E7.5	E.2

LOCAL IDENT-I-FIER	CARBON, ORGANIC TOTAL (MG/L AS C)	ENDRIN TOTAL (UG/L)	LINDANE TOTAL (UG/L)	METH-OXY-CHLOR, TOTAL (UG/L)	PCB, TOTAL (UG/L)	TOX-APHENE, TOTAL (UG/L)	DACTHAL TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)
31S 19W 24AAB 01	--	--	--	--	--	--	--	--	--	--
32S 19W 12DA 01	--	--	--	--	--	--	--	--	--	--
32S 20W 18AAA 01	--	--	--	--	--	--	--	--	--	--
33S 19W 36DAA 01	--	--	--	--	--	--	--	--	--	--
33S 20W 03BAC 01	--	ND	ND	ND	ND	ND	ND	ND	ND	ND

ND NOT DETECTED; DETECTION LIMIT <0.4 UG/L.
E ESTIMATED VALUE.

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

COWLEY COUNTY

LOCAL IDENT-I-FIER	STATION NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO-LOGIC UNIT	DATE OF SAMPLE	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	HARD-NESS (MG/L AS CACO3)
30S 08E 21CAC 01	372522096320701	43	317BDER	79-06-20	540	7.9	21.0	1.0	250
31S 04E 06BDD 01	372303097020301	28	112TRRC	79-07-19	640	7.1	19.0	1.0	340
34S 03E 26BDA 01	370359097040501	36	112TRRC	79-07-12	2200	7.9	16.0	1.0	390

LOCAL IDENT-I-FIER	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)
30S 08E 21CAC 01	11	86	13	11	9	.3	.9	300	0	246
31S 04E 06BDD 01	84	110	16	34	18	.8	1.0	310	0	254
34S 03E 26BDA 01	200	110	25	270	60	6.0	6.0	250	0	205

LOCAL IDENT-I-FIER	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)
30S 08E 21CAC 01	6.0	23	10	.3	14	298	300	.10	.40	.00
31S 04E 06BDD 01	39	27	78	.4	21	472	473	7.4	33	.12
34S 03E 26BDA 01	5.0	120	480	.5	14	--	1150	.30	1.3	.06

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

CRAWFORD COUNTY

LOCAL IDENT-I-FIER	STATION NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO-LOGIC UNIT	DATE OF SAMPLE	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	HARD-NESS (MG/L AS CACO3)
27S 22E 35BBB 01	373932094584101	76	325MRMN	79-04-26	1500	6.9	17.0	.20	380
28S 22E 21CCC 01	373516095005201	650	367RBDX	79-06-19	2400	7.4	15.5	.70	310
28S 25E 03AAA 01	373836094390601	11	325LBTT	79-06-18	872	7.6	15.5	.30	200
30S 21E 26BAB 01	372442095045601	30	112ALVM	79-06-19	345	7.5	16.5	.30	160
31S 22E 08CD 01	372121095012601	1304	367RBDX	79-06-19	2670	7.3	17.5	.20	330

LOCAL IDENT-I-FIER	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)
27S 22E 35BBB 01	0	59	57	190	52	4.2	3.0	590	0	484
28S 22E 21CCC 01	50	77	28	340	70	8.4	12	350	0	287
28S 25E 03AAA 01	37	51	18	70	43	2.1	2.0	200	0	164
30S 21E 26BAB 01	12	59	4.1	6.8	8	.2	1.0	190	0	156
31S 22E 08CD 01	56	78	33	380	70	9.1	13	360	0	295

LOCAL IDENT-I-FIER	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)
27S 22E 35BBB 01	119	100	110	.5	11	900	892	16	71	.00
28S 22E 21CCC 01	22	110	480	1.9	11	--	1220	.20	.90	.00
28S 25E 03AAA 01	8.0	130	44	.5	8.0	430	434	2.0	8.9	.00
30S 21E 26BAB 01	9.6	14	11	.0	9.0	200	202	.90	4.0	.02
31S 22E 08CD 01	29	120	550	2.0	12	--	1360	.20	.90	.00

LOCAL IDENT-I-FIER	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)
27S 22E 35BBB 01	0	100	0	0	10	20	0	0	.0	16
28S 22E 21CCC 01	--	--	--	--	--	--	--	--	--	--
28S 25E 03AAA 01	0	100	12	0	10	2000	0	20	.0	0
30S 21E 26BAB 01	--	--	--	--	--	--	--	--	--	--
31S 22E 08CD 01	--	--	--	--	--	--	--	--	--	--

LOCAL IDENT-I-FIER	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)	ALDRIN, TOTAL (UG/L)	ATRA-ZINE, TOTAL (UG/L)	CHLOR-DANE, TOTAL (UG/L)	O,P' DDT, TOTAL (UG/L)	P,P' DDT, TOTAL (UG/L)	DI-ELDRIN TOTAL (UG/L)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)	CARBON, ORGANIC TOTAL (MG/L AS C)
27S 22E 35BBB 01	0	150	--	--	--	--	--	--	--	--
28S 22E 21CCC 01	--	--	--	--	--	--	--	--	--	--
28S 25E 03AAA 01	10	580	ND	ND	ND	ND	ND	ND	E2.8	3.1
30S 21E 26BAB 01	--	--	--	--	--	--	--	--	--	--
31S 22E 08CD 01	--	--	--	--	--	--	--	--	--	--

LOCAL IDENT-I-FIER	ENDRIN, TOTAL (UG/L)	LINDANE TOTAL (UG/L)	METH-OXY-CHLOR, TOTAL (UG/L)	PCB, TOTAL (UG/L)	TOX-APHENE, TOTAL (UG/L)	DACTHAL TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)
27S 22E 35BBB 01	--	--	--	--	--	--	--	--	--
28S 22E 21CCC 01	--	--	--	--	--	--	--	--	--
28S 25E 03AAA 01	ND	ND	ND	ND	ND	ND	ND	ND	ND
30S 21E 26BAB 01	--	--	--	--	--	--	--	--	--
31S 22E 08CD 01	--	--	--	--	--	--	--	--	--

ND NOT DETECTED; DETECTION LIMIT IS <0.4 UG/L.
E ESTIMATED VALUE.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

EDWARDS COUNTY

LOCAL IDENTIFIER	STATION NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEOLOGIC UNIT	DATE OF SAMPLE	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (NTU)	HARDNESS (MG/L AS CACO3)
24S 18W 36CCA 01	375452099152001	--	--	79-09-12	580	7.6	14.0	.20	210
25S 20W 07CAA 01	375324099333801	125	112PLSC	79-09-12	690	7.4	15.0	11	260
26S 18W 19DDB 01	374545099193101	--	--	79-09-12	450	7.7	15.0	.20	190
26S 18W 34CCA 01	374400099165501	--	--	79-09-12	370	7.6	15.0	.30	160

LOCAL IDENTIFIER	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)
24S 18W 36CCA 01	0	72	6.9	34	26	1.0	3.0	280	0	230
25S 20W 07CAA 01	47	80	14	39	24	1.1	5.0	250	0	205
26S 18W 19DDB 01	10	64	6.9	16	15	.5	2.0	200	0	164
26S 18W 34CCA 01	22	56	4.0	11	13	.4	2.0	160	0	131

LOCAL IDENTIFIER	CARBON DIOXIDE DISSOLVED (MG/L AS CO2)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRATE DISSOLVED (MG/L AS N)	NITROGEN, NITRATE DISSOLVED (MG/L AS NO3)	PHOSPHORUS, TOTAL (MG/L AS P)
24S 18W 36CCA 01	11	22	12	.6	20	332	335	5.9	26	--
25S 20W 07CAA 01	16	59	46	1.0	46	443	430	3.8	17	--
26S 18W 19DDB 01	6.4	19	11	.4	23	272	263	5.1	23	--
26S 18W 34CCA 01	6.4	16	8.0	.4	22	233	231	7.4	33	--

LOCAL IDENTIFIER	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	SELENIUM, DISSOLVED (UG/L AS SE)
24S 18W 36CCA 01	0	300	2	0	10	10	0	10	.0	2
25S 20W 07CAA 01	--	--	--	--	--	--	--	--	--	--
26S 18W 19DDB 01	--	--	--	--	--	--	--	--	--	--
26S 18W 34CCA 01	--	--	--	--	--	--	--	--	--	--

LOCAL IDENTIFIER	SILVER, DISSOLVED (UG/L AS AG)	ZINC, DISSOLVED (UG/L AS ZN)	ALDRIN, TOTAL (UG/L)	ATRAZINE, TOTAL (UG/L)	CHLORDANE, TOTAL (UG/L)	O,P' DDT, TOTAL (UG/L)	P,P' DDT, TOTAL (UG/L)	DIELDRIN TOTAL (UG/L)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)	RADIUM 226, SUSPENDED TOTAL (PCI/L)
24S 18W 36CCA 01	0	10	--	--	--	--	--	--	E8.1	E.2
25S 20W 07CAA 01	--	--	--	--	--	--	--	--	--	--
26S 18W 19DDB 01	--	--	--	--	--	--	--	--	--	--
26S 18W 34CCA 01	--	--	--	--	--	--	--	--	--	--

LOCAL IDENTIFIER	CARBON, ORGANIC TOTAL (MG/L AS C)	ENDRIN, TOTAL (UG/L)	LINDANE TOTAL (UG/L)	METHOXYCHLOR, TOTAL (UG/L)	PCB, TOTAL (UG/L)	TOXAPHENE, TOTAL (UG/L)	DACTHAL TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)
24S 18W 36CCA 01	1.5	--	--	--	--	--	--	--	--	--
25S 20W 07CAA 01	--	--	--	--	--	--	--	--	--	--
26S 18W 19DDB 01	--	--	--	--	--	--	--	--	--	--
26S 18W 34CCA 01	--	--	--	--	--	--	--	--	--	--

E ESTIMATED VALUE.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

ELK COUNTY

LOCAL IDENT-I-FIER	STATION NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO-LOGIC UNIT	DATE OF SAMPLE	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	HARD-NESS (MG/L AS CACO3)
28S 10E 36BDB 01	373421096155601	23	--	79-06-13	598	7.5	20.0	1.1	270
31S 11E 26CCC 01	371859096104701	90	--	79-06-13	1280	8.8	18.5	.60	8
31S 12E 36BDA 01	371836096024701	97	321IRLD	79-06-12	1680	7.4	20.0	5.3	280

LOCAL IDENT-I-FIER	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)
28S 10E 36BDB 01	29	83	16	20	13	.5	5.0	270	0	221
31S 11E 26CCC 01	0	1.6	1.0	300	99	46	.8	550	15	476
31S 12E 36BDA 01	34	67	27	220	63	5.7	2.0	280	0	230

LOCAL IDENT-I-FIER	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)
28S 10E 36BDB 01	14	51	16	.5	15	363	350	2.4	11	.06
31S 11E 26CCC 01	1.5	140	29	1.4	9.0	784	769	.10	.40	.01
31S 12E 36BDA 01	18	220	140	.6	9.0	974	957	30	133	.01

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

ELLSWORTH COUNTY

LOCAL IDENT-I-FIER	STATION NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO-LOGIC UNIT	DATE OF SAMPLE	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	HARD-NESS (MG/L AS CACO3)
14S 07W 26DCC 01	384758098035801	106	211DKOT	79-04-12	1930	7.0	11.5	3.0	660
15S 08W 20BCD 01	384401098142301	30	112ALVM	79-04-12	620	7.5	13.0	2.0	240
16S 06W 28ABB 01	383817097591701	65	112ALVM	79-05-02	280	7.0	13.5	4.0	130
17S 09W 16DAB 01	383420098185701	210	211DKOT	79-04-12	660	7.4	14.0	7.0	260

LOCAL IDENT-I-FIER	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SURP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)
14S 07W 26DCC 01	550	200	39	160	34	2.7	2.0	130	0	107
15S 08W 20BCD 01	27	83	7.0	40	26	1.1	6.0	260	0	213
16S 06W 28ABB 01	10	45	4.8	5.2	8	.2	1.0	150	0	123
17S 09W 16DAB 01	0	83	12	50	29	1.4	3.0	310	0	254

LOCAL IDENT-I-FIER	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)
14S 07W 26DCC 01	21	210	260	.5	15	--	1370	94	416	.00
15S 08W 20BCD 01	13	49	40	.4	21	401	401	6.1	27	.10
16S 06W 28ABB 01	24	12	4.0	.4	19	181	182	3.7	16	.09
17S 09W 16DAB 01	20	23	61	.5	33	424	420	.10	.40	.00

LOCAL IDENT-I-FIER	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)
14S 07W 26DCC 01	--	--	--	--	--	--	--	--	--	--
15S 08W 20BCD 01	--	--	--	--	--	--	--	--	--	--
16S 06W 28ABB 01	--	--	--	--	--	--	--	--	--	--
17S 09W 16DAB 01	0	100	0	0	0	480	0	190	.5	0

LOCAL IDENT-I-FIER	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)	ALDRIN, TOTAL (UG/L)	ATRA-ZINE, TOTAL (UG/L)	CHLOR-DANE, TOTAL (UG/L)	O,P' DDT, TOTAL (UG/L)	P,P' DDT, TOTAL (UG/L)	DI-ELDRIN TOTAL (UG/L)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)	RADIUM 226, SUS-PENDED TOTAL (PCI/L)
14S 07W 26DCC 01	--	--	--	--	--	--	--	--	--	--
15S 08W 20BCD 01	--	--	--	--	--	--	--	--	--	--
16S 06W 28ABB 01	--	--	--	--	--	--	--	--	--	--
17S 09W 16DAB 01	0	180	ND	ND	ND	ND	ND	ND	11	3.0

LOCAL IDENT-I-FIER	CARBON, ORGANIC TOTAL (MG/L AS C)	ENDRIN, TOTAL (UG/L)	LINDANE TOTAL (UG/L)	METH-OXY-CHLOR, TOTAL (UG/L)	PCB, TOTAL (UG/L)	TOX-APHENE, TOTAL (UG/L)	DACTHAL TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)
14S 07W 26DCC 01	--	--	--	--	--	--	--	--	--	--
15S 08W 20BCD 01	--	--	--	--	--	--	--	--	--	--
16S 06W 28ABB 01	--	--	--	--	--	--	--	--	--	--
17S 09W 16DAB 01	.4	ND	ND	ND	ND	ND	ND	ND	ND	ND

ND NOT DETECTED; DETECTION LIMIT IS <0.4 UG/L.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

FINNEY COUNTY

LOCAL IDENT-I-FIER	STATION NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO-LOGIC UNIT	DATE OF SAMPLE	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	HARD-NESS (MG/L AS CACO3)
21S 32W 08ABD 01	381453100511001	150	121OGLL	79-06-28	2010	7.4	16.0	.40	900
23S 31W 03DCC 01	380435100423201	180	121OGLL	79-07-10	945	7.5	16.0	.30	370
23S 33W 17BBB 01	380339100582401	340	121OGLL	79-06-27	1090	7.7	18.0	.40	500
24S 33W 14BCB 01	375812100550701	--	121OGLL	79-06-27	3980	6.9	14.5	--	--
		--	121OGLL	79-06-29	3980	6.9	14.5	.70	1600
24S 33W 19DBD 01	375700100584901	--	121OGLL	79-06-28	465	7.9	17.5	.50	160
24S 34W 05AAB 01	380010101040601	320	121OGLL	79-06-27	3220	7.5	17.0	.50	1600

LOCAL IDENT-I-FIER	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)
21S 32W 08ABD 01	610	190	100	140	25	2.0	11	340	0	279
23S 31W 03DCC 01	180	94	33	46	21	1.0	8.0	260	0	213
23S 33W 17BBB 01	340	120	50	48	17	.9	7.0	190	0	156
24S 33W 14BCB 01	--	--	--	--	--	--	--	--	--	--
	1400	420	140	460	38	5.0	10	280	0	230
24S 33W 19DBD 01	0	46	12	25	24	.8	3.0	200	0	164
24S 34W 05AAB 01	1400	380	150	260	26	2.9	12	220	0	180

LOCAL IDENT-I-FIER	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)
21S 32W 08ABD 01	22	740	100	2.5	64	--	1560	5.6	25	.01
23S 31W 03DCC 01	13	130	84	1.6	55	503	610	6.9	31	.01
23S 33W 17BBB 01	6.1	320	72	1.0	26	754	756	4.1	18	.00
24S 33W 14BCB 01	--	--	--	--	--	--	--	--	--	--
	56	2040	180	1.2	16	--	3470	13	58	.00
24S 33W 19DBD 01	4.0	45	7.0	.7	24	275	274	2.8	12	.00
24S 34W 05AAB 01	11	1660	160	1.2	30	--	2790	7.1	31	.01

LOCAL IDENT-I-FIER	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)
24S 33W 14BCB 01	--	--	--	--	--	--	--	--	--	--
	0	0	0	0	20	30	0	0	.0	14

LOCAL IDENT-I-FIER	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)	ALDRIN, TOTAL (UG/L)	ATRA-ZINE, TOTAL (UG/L)	CHLOR-DANE, TOTAL (UG/L)	O,P' DDT, TOTAL (UG/L)	P,P' DDT, TOTAL (UG/L)	DI-ELDRIN TOTAL (UG/L)	SUSP. TOTAL (PCI/L AS U-NAT)	226, SUS-PENDED TOTAL (PCI/L)
24S 33W 14BCB 01	--	--	--	--	--	--	--	--	--	--
	10	20	.02	ND	ND	ND	ND	.05	E24	E.2

LOCAL IDENT-I-FIER	CARBON, ORGANIC TOTAL (MG/L AS C)	ENDRIN, TOTAL (UG/L)	LINDANE TOTAL (UG/L)	METH-OXY-CHLOR, TOTAL (UG/L)	PCB, TOTAL (UG/L)	TOX-APHENE, TOTAL (UG/L)	DACTHAL TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)
24S 33W 14BCB 01	39	--	--	--	--	--	--	--	--	--
	--	ND	.02	ND	ND	ND	.05	ND	ND	ND

ND NOT DETECTED; DETECTION LIMIT IS <0.4 UG/L.
E ESTIMATED VALUE.

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

FORD COUNTY

LOCAL IDENT- I- FIER	STATION NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE OF SAMPLE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	HARD- NESS (MG/L AS CACO3)
26S 23W 10DAD 01	374725099485601	278	211DKOT	79-09-11	540	7.5	16.0	.20	130
26S 25W 33BAD 01	374432100035201	--	112ALVM	79-09-11	1120	7.4	14.0	.20	440
27S 22W 13CCD 01	374107099403501	246	211DKOT	79-09-11	550	7.4	14.0	.20	230
28S 25W 06ABB 01	373838100053901	189	121OGLL	79-09-11	520	7.4	15.0	.20	210
29S 21W 06BBC 01	373302099395401	--	--	79-09-11	460	7.4	15.0	.30	220

LOCAL IDENT- I- FIER	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)
26S 23W 10DAD 01	0	29	15	66	51	2.5	4.0	250	0	205
26S 25W 33BAD 01	250	130	30	66	24	1.4	4.0	240	0	197
27S 22W 13CCD 01	20	80	6.9	22	17	.6	4.0	250	0	205
28S 25W 06ABB 01	36	67	9.9	22	18	.7	3.0	210	0	172
29S 21W 06BBC 01	3	69	11	10	9	.3	4.0	260	0	213

LOCAL IDENT- I- FIER	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
26S 23W 10DAD 01	13	50	14	1.2	35	343	341	.80	3.5	--
26S 25W 33BAD 01	15	320	31	1.0	21	736	740	4.2	19	--
27S 22W 13CCD 01	16	14	24	.6	31	339	338	7.3	32	--
28S 25W 06ABB 01	13	41	27	.5	23	314	314	3.8	17	--
29S 21W 06BBC 01	17	10	10	.4	31	284	284	2.4	11	--

LOCAL IDENT- I- FIER	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
26S 23W 10DAD 01	--	--	--	--	--	--	--	--	--	--
26S 25W 33BAD 01	--	--	--	--	--	--	--	--	--	--
27S 22W 13CCD 01	0	400	0	0	10	20	10	0	.0	40
28S 25W 06ABB 01	--	--	--	--	--	--	--	--	--	--
29S 21W 06BBC 01	--	--	--	--	--	--	--	--	--	--

LOCAL IDENT- I- FIER	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, DIS- SOLVED (UG/L AS ZN)	ALDRIN, TOTAL (UG/L)	ATRA- ZINE, TOTAL (UG/L)	CHLOR- DANE, TOTAL (UG/L)	O,P' DDT, TOTAL (UG/L)	P,P' DDT, TOTAL (UG/L)	DI- ELDRIN TOTAL (UG/L)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)	RADIUM 226, SUS- PENDED TOTAL (PCI/L)
26S 23W 10DAD 01	--	--	--	--	--	--	--	--	--	--
26S 25W 33BAD 01	--	--	--	--	--	--	--	--	--	--
27S 22W 13CCD 01	0	10	ND	ND	ND	ND	ND	ND	E3.3	--
28S 25W 06ABB 01	--	--	--	--	--	--	--	--	--	--
29S 21W 06BBC 01	--	--	--	--	--	--	--	--	--	--

LOCAL IDENT- I- FIER	CARBON, ORGANIC TOTAL (MG/L AS C)	ENDRIN, TOTAL (UG/L)	LINDANE TOTAL (UG/L)	METH- OXY- CHLOR, TOTAL (UG/L)	PCB, TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)	DACTHAL TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)
26S 23W 10DAD 01	--	--	--	--	--	--	--	--	--	--
26S 25W 33BAD 01	--	--	--	--	--	--	--	--	--	--
27S 22W 13CCD 01	2.4	ND	ND	ND	ND	ND	ND	ND	ND	ND
28S 25W 06ABB 01	--	--	--	--	--	--	--	--	--	--
29S 21W 06BBC 01	--	--	--	--	--	--	--	--	--	--

ND NOT DETECTED; DETECTION LIMIT IS <0.4 UG/L.
E ESTIMATED VALUE.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

GRANT COUNTY

LOCAL IDENT-I-FIER	STATION NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO-LOGIC UNIT	DATE OF SAMPLE	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	HARD-NESS (MG/L AS CACO3)
27S 37W 26BCB 01	374024101203601	595	121OGLL	79-07-30	880	7.4	17.0	.20	280
27S 38W 23CB 01	374100101270501	235	121OGLL	79-07-30	990	7.3	14.5	.20	380
28S 37W 30BBD 01	373516101245001	285	121OGLL	79-07-31	970	7.6	16.0	.80	370
29S 35W 06BAA 01	373339101112801	376	121OGLL	79-07-31	840	7.6	18.0	.30	300
30S 38W 13CCC 01	372556101260201	560	121OGLL	79-08-02	600	7.5	18.0	.20	210

LOCAL IDENT-I-FIER	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)
27S 37W 26BCB 01	76	67	27	81	38	2.1	4.0	240	0	197
27S 38W 23CB 01	180	99	33	56	24	1.2	6.0	230	0	189
28S 37W 30BBD 01	200	75	45	60	26	1.4	5.0	210	0	172
29S 35W 06BAA 01	120	66	34	56	28	1.4	5.0	210	0	172
30S 38W 13CCC 01	46	51	21	43	30	1.3	4.0	190	0	156

LOCAL IDENT-I-FIER	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)
27S 37W 26BCB 01	15	220	20	1.3	26	579	574	2.2	9.7	.00
27S 38W 23CB 01	18	280	40	1.1	25	648	635	14	62	.00
28S 37W 30BBD 01	8.4	260	30	2.1	30	629	633	3.2	14	.00
29S 35W 06BAA 01	8.4	210	20	1.5	42	561	552	3.2	14	.00
30S 38W 13CCC 01	9.6	120	14	1.1	21	386	377	1.9	8.4	.04

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

GRAY COUNTY

LOCAL IDENT- I- FIER	STATION NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE OF SAMPLE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	HARD- NESS (MG/L AS CACO3)
24S 29W 18CCB 01	375736100331301	240	121OGLL	79-09-11	800	7.7	15.0	.20	340
26S 27W 17BDD 01	374714100174401	180	--	79-09-11	415	7.5	15.0	.20	160
27S 28W 05AAA 01	374411100235101	228	121OGLL	79-09-11	450	7.5	180	.20	180
27S 30W 23BB 01	374126100343401	135	121OGLL	79-09-18	665	7.4	15.0	.30	290
29S 28W 28CDC 01	372922100232701	284	121OGLL	79-08-01	450	7.6	14.5	.40	180

LOCAL IDENT- I- FIER	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)
24S 29W 18CCB 01	160	77	36	28	15	.7	7.0	210	0	172
26S 27W 17BDD 01	8	53	7.7	21	21	.7	3.0	190	0	156
27S 28W 05AAA 01	4	61	7.7	20	19	.6	4.0	220	0	180
27S 30W 23BB 01	54	94	13	25	16	.6	4.0	280	0	230
29S 28W 28CDC 01	9	56	11	17	16	.5	4.0	210	0	172

LOCAL IDENT- I- FIER	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
24S 29W 18CCB 01	6.7	120	68	--	46	512	509	5.4	24	--
26S 27W 17BDD 01	9.6	41	9.0	.5	23	260	261	2.0	8.9	--
27S 28W 05AAA 01	11	30	10	.5	24	282	282	3.8	17	--
27S 30W 23BB 01	18	48	32	.4	23	407	404	6.1	27	.01
29S 28W 28CDC 01	8.4	29	12	.6	27	278	276	3.7	16	.01

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

GREELEY COUNTY

LOCAL IDENT-I-FIER	STATION NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO-LOGIC UNIT	DATE OF SAMPLE	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	HARD-NESS (MG/L AS CACO3)
16S 39W 22DCB 01	383841101363801	163	121OGLL	79-07-11	485	7.7	15.5	.20	190
16S 41W 20BAD 01	383915101522901	250	121OGLL	79-07-11	640	7.7	16.5	.20	270
17S 40W 15CCB 01	383418101435701	200	121OGLL	79-07-11	460	7.8	16.0	.30	210
20S 41W 02ADD 01	382037101482701	184	121OGLL	79-07-31	1140	7.6	15.0	.50	380

LOCAL IDENT-I-FIER	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)
16S 39W 22DCB 01	36	45	18	29	25	.9	5.0	180	0	148
16S 41W 20BAD 01	120	64	27	28	18	.7	5.0	180	0	148
17S 40W 15CCB 01	66	53	18	29	23	.9	4.0	160	0	131
20S 41W 02ADD 01	250	80	39	92	34	2.1	6.0	160	0	131

LOCAL IDENT-I-FIER	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)
16S 39W 22DCB 01	5.7	60	15	1.7	47	331	330	2.8	12	.01
16S 41W 20BAD 01	5.7	100	42	1.0	43	435	433	7.7	34	.01
17S 40W 15CCB 01	4.1	85	27	1.2	50	369	364	4.0	18	.01
20S 41W 02ADD 01	6.4	370	46	1.7	22	760	762	4.2	19	.00

LOCAL IDENT-I-FIER	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)
16S 39W 22DCB 01	--	--	--	--	--	--	--	--	--	--
16S 41W 20BAD 01	0	100	1	0	0	20	0	10	.0	6
17S 40W 15CCB 01	--	--	--	--	--	--	--	--	--	--
20S 41W 02ADD 01	--	--	--	--	--	--	--	--	--	--

LOCAL IDENT-I-FIER	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)	ALDRIN, TOTAL (UG/L)	ATRA-ZINE, TOTAL (UG/L)	CHLOR-DANE, TOTAL (UG/L)	O,P' DDT, TOTAL (UG/L)	P,P' DDT, TOTAL (UG/L)	DI-ELDRIN TOTAL (UG/L)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)	RADIUM 226, SUS-PENDED TOTAL (PCI/L)
16S 39W 22DCB 01	--	--	--	--	--	--	--	--	--	--
16S 41W 20BAD 01	0	50	ND	ND	ND	ND	ND	ND	E10	E.2
17S 40W 15CCB 01	--	--	--	--	--	--	--	--	--	--
20S 41W 02ADD 01	--	--	--	--	--	--	--	--	--	--

LOCAL IDENT-I-FIER	CARBON, ORGANIC TOTAL (MG/L AS C)	ENDRIN, TOTAL (UG/L)	LINDANE TOTAL (UG/L)	METH-OXY-CHLOR, TOTAL (UG/L)	PCB, TOTAL (UG/L)	TOX-APHENE, TOTAL (UG/L)	DACTHAL TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)
16S 39W 22DCB 01	--	--	--	--	--	--	--	--	--	--
16S 41W 20BAD 01	4.3	ND	ND	ND	ND	ND	ND	ND	ND	ND
17S 40W 15CCB 01	--	--	--	--	--	--	--	--	--	--
20S 41W 02ADD 01	--	--	--	--	--	--	--	--	--	--

ND NOT DETECTED; DETECTION LIMIT IS <0.4 UG/L.
E ESTIMATED VALUE.

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

GREENWOOD COUNTY

LOCAL IDENT- I- FIER	STATION NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE OF SAMPLE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	HARD- NESS (MG/L AS CACO3)
22S 13E 20DDC 01	380658095595501	12	112RCIS	79-06-14	745	7.0	20.0	3.0	380
25S 13E 30CCA 01	375023096013901	27	322SMNN	79-06-14	407	6.6	17.0	.40	150

LOCAL IDENT- I- FIER	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)
22S 13E 20DDC 01	20	120	18	14	8	.3	.6	440	0	361
25S 13E 30CCA 01	60	40	13	22	28	.8	.6	110	0	90

LOCAL IDENT- I- FIER	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
22S 13E 20DDC 01	70	29	19	.2	13	430	434	.80	3.5	.00
25S 13E 30CCA 01	44	76	14	.3	11	255	252	4.8	21	.00

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

HAMILTON COUNTY

LOCAL IDENT- I- FIER	STATION NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE OF SAMPLE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	HARD- NESS (MG/L AS CACO3)
21S 40W 31CCC 01	381033101453701	402	211DKOT	79-07-31	710	8.1	20.0	.50	28
22S 41W 33DCD 01	380520101492001	585	210CRCS	79-07-31	530	7.5	17.0	.50	68
23S 42W 19CAB 01	380210101584801	74	112ALVM	79-07-31	5500	7.0	14.0	1.5	2100
24S 39W 30BAD 01	375624101385301	--	112ALVM	79-07-31	3400	7.2	13.0	.40	1200
24S 40W 07CCC 01	375821101453801	--	--	79-07-31	5100	7.1	13.0	.40	1900

LOCAL IDENT- I- FIER	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)
21S 40W 31CCC 01	0	8.0	2.0	150	91	12	4.0	280	0	230
22S 41W 33DCD 01	0	16	6.8	87	72	4.6	5.0	190	0	156
23S 42W 19CAB 01	1800	520	200	700	42	6.6	17	410	0	336
24S 39W 30BAD 01	950	290	120	380	40	4.7	8.0	310	0	254
24S 40W 07CCC 01	1600	520	150	650	42	6.5	11	290	0	238

LOCAL IDENT- I- FIER	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
21S 40W 31CCC 01	3.6	110	14	2.1	11	432	439	.00	.00	.01
22S 41W 33DCD 01	9.6	91	10	1.5	8.0	322	319	.10	.40	.00
23S 42W 19CAB 01	66	2830	290	2.9	32	--	4850	8.5	38	.01
24S 39W 30BAD 01	31	1620	120	1.3	17	--	2720	1.7	7.5	.01
24S 40W 07CCC 01	37	2550	240	1.4	18	--	4310	3.5	15	.01

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

HARPER COUNTY

LOCAL IDENT- I- FIER	STATION NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE OF SAMPLE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	HARD- NESS (MG/L AS CACO3)
31S 05W 25DCC 01	371900097484201	68	317BMNR	79-07-13	340	7.1	16.0	1.0	110
32S 07W 02CDA 01	371706098025801	80	111CLVM	79-09-19	645	7.5	17.5	1.2	220
32S 08W 20BCD 01	371449098125601	30	112WSCS	79-08-09	790	8.7	16.0	3.0	290
34S 09W 18BBB 01	370535098204701	25	310PRMN	79-07-13	2020	7.8	16.5	1.2	480
35S 05W 11CCC 02	370035097501202	34	310PRMN	79-07-13	1100	7.6	18.0	1.0	310

LOCAL IDENT- I- FIER	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)
31S 05W 25DCC 01	14	29	8.7	20	29	.8	.3	120	0	98
32S 07W 02CDA 01	0	66	13	44	33	1.4	2.0	290	0	238
32S 08W 20BCD 01	72	85	20	43	24	1.1	2.0	260	0	213
34S 09W 18BBB 01	6	59	81	280	56	5.6	1.0	780	0	640
35S 05W 11CCC 02	24	61	34	110	45	2.8	2.0	350	0	287

LOCAL IDENT- I- FIER	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
31S 05W 25DCC 01	15	23	9.0	.2	20	200	204	7.8	35	.03
32S 07W 02CDA 01	15	31	27	.3	21	373	372	4.5	20	.10
32S 08W 20BCD 01	.8	83	65	.5	33	466	460	.10	.40	.27
34S 09W 18BBB 01	20	180	160	.9	16	--	1240	18	80	.89
35S 05W 11CCC 02	14	75	88	.4	18	670	663	23	102	.03

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

HARVEY COUNTY

LOCAL IDENT-I-FIER	STATION NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO-LOGIC UNIT	DATE OF SAMPLE	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	HARD-NESS (MG/L AS CACO3)
22S 01W 30DCC 01	380608097201201	23	112ALVM	79-08-23	1040	7.4	19.5	1.0	410
23S 01W 32BBC 01	380041097273701	133	112PLSC	79-08-23	300	7.0	15.5	1.0	130
23S 03W 29DBD 01	380107097400901	135	112PLSC	79-08-23	1550	7.1	16.5	2.8	380
24S 02W 02AAC 01	375948097300801	20	112PLSC	79-08-23	500	7.3	21.5	2.5	160
24S 02W 23BBB 01	375718097305601	80	112PLSC	79-08-23	840	6.9	15.0	30	340

LOCAL IDENT-I-FIER	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)
22S 01W 30DCC 01	73	130	20	82	30	1.8	2.0	400	0	328
23S 01W 32BBC 01	2	46	4.2	16	21	.6	1.0	160	0	131
23S 03W 29DBD 01	220	110	27	140	48	3.1	4.0	200	0	164
24S 02W 02AAC 01	9	51	8.9	42	35	1.4	2.0	220	0	180
24S 02W 23BBB 01	100	110	16	43	21	1.0	3.0	200	0	164

LOCAL IDENT-I-FIER	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)
22S 01W 30DCC 01	25	55	83	.3	27	786	783	24	106	.03
23S 01W 32BBC 01	26	19	9.0	.2	29	212	213	2.1	9.3	.22
23S 03W 29DBD 01	25	69	320	.4	23	803	807	3.3	15	.10
24S 02W 02AAC 01	18	57	14	.4	18	305	302	.10	.40	.03
24S 02W 23BBB 01	40	250	15	.4	20	556	559	.60	2.7	.02

LOCAL IDENT-I-FIER	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)
22S 01W 30DCC 01	--	--	--	--	--	--	--	--	--	--
23S 01W 32BBC 01	--	--	--	--	--	--	--	--	--	--
23S 03W 29DBD 01	0	500	0	0	0	130	0	10	.0	1
24S 02W 02AAC 01	--	--	--	--	--	--	--	--	--	--
24S 02W 23BBB 01	--	--	--	--	--	--	--	--	--	--

LOCAL IDENT-I-FIER	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)	ALDRIN, TOTAL (UG/L)	ATRA-ZINE, TOTAL (UG/L)	CHLOR-DANE, TOTAL (UG/L)	O,P' DDT, TOTAL (UG/L)	P,P' DDT, TOTAL (UG/L)	DI-ELDRIN TOTAL (UG/L)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)	RADIUM 226, SUS-PENDED TOTAL (PCI/L)
22S 01W 30DCC 01	--	--	--	--	--	--	--	--	--	--
23S 01W 32BBC 01	--	--	--	--	--	--	--	--	--	--
23S 03W 29DBD 01	0	20	ND	ND	ND	ND	ND	ND	E5.6	E.6
24S 02W 02AAC 01	--	--	--	--	--	--	--	--	--	--
24S 02W 23BBB 01	--	--	--	--	--	--	--	--	--	--

LOCAL IDENT-I-FIER	CARBON, ORGANIC TOTAL (MG/L AS C)	ENDRIN, TOTAL (UG/L)	LINDANE TOTAL (UG/L)	METH-OXY-CHLOR, TOTAL (UG/L)	PCB, TOTAL (UG/L)	TOX-APHENE, TOTAL (UG/L)	DACTHAL TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)
22S 01W 30DCC 01	--	--	--	--	--	--	--	--	--	--
23S 01W 32BBC 01	--	--	--	--	--	--	--	--	--	--
23S 03W 29DBD 01	2.2	ND	ND	ND	ND	ND	ND	ND	ND	ND
24S 02W 02AAC 01	--	--	--	--	--	--	--	--	--	--
24S 02W 23BBB 01	--	--	--	--	--	--	--	--	--	--

ND NOT DETECTED; DETECTION LIMIT IS <0.4 UG/L.
E ESTIMATED VALUE.

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

HASKELL COUNTY

LOCAL IDENT- I- FIER	STATION NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE OF SAMPLE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	HARD- NESS (MG/L AS CACO3)
27S 31W 24CDC 01	374044100395001	206	121OGLL	79-08-01	670	7.7	14.5	.30	280
27S 32W 06CBB 01	374343100520001	298	121OGLL	79-07-30	365	7.5	16.5	.20	140
29S 34W 36BCC 01	372059100594901	--	--	79-09-18	520	7.9	17.0	.40	200
30S 33W 02AAB 01	372027100533301	412	121OGLL	79-08-01	475	7.6	17.0	.30	180
30S 34W 13ABC 01	372621100592001	500	121OGLL	79-08-01	760	7.5	16.0	.20	270

LOCAL IDENT- I- FIER	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)
27S 31W 24CDC 01	90	90	13	21	14	.5	4.0	210	0	172
27S 32W 06CBB 01	0	45	6.7	17	21	.6	2.6	170	0	139
29S 34W 36BCC 01	26	53	16	34	27	1.1	3.0	210	0	172
30S 33W 02AAB 01	18	50	13	28	25	.9	3.0	180	0	148
30S 34W 13ABC 01	84	67	25	50	28	1.3	4.0	220	0	180

LOCAL IDENT- I- FIER	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
27S 31W 24CDC 01	6.7	64	45	.4	23	398	394	6.9	31	.02
27S 32W 06CBB 01	8.6	30	6.0	.5	23	224	223	2.1	9.3	.00
29S 34W 36BCC 01	4.2	72	13	1.1	21	329	329	2.8	12	.00
30S 33W 02AAB 01	7.2	57	10	.9	22	294	287	1.4	6.2	.00
30S 34W 13ABC 01	11	170	10	1.2	24	482	488	2.9	13	.00

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

HODGEMAN COUNTY

LOCAL IDENT-I-FIER	STATION NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO-LOGIC UNIT	DATE OF SAMPLE	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	HARD-NESS (MG/L AS CACO3)
22S 24W 34CDC 01	380517099565201	416	211DKOT	79-08-17	920	7.7	17.5	11	88
23S 23W 06CAB 01	380445099533401	385	211DKOT	79-08-17	1550	7.5	16.5	1.4	80
24S 23W 34AAD 01	375531099493501	120	211DKOT	79-09-12	685	7.3	15.0	.40	270

LOCAL IDENT-I-FIER	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)
22S 24W 34CDC 01	0	19	9.9	160	78	7.4	8.0	270	0	221
23S 23W 06CAB 01	0	18	8.5	300	88	15	8.0	270	0	221
24S 23W 34AAD 01	8	58	31	41	24	1.1	6.0	330	0	271

LOCAL IDENT-I-FIER	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)
22S 24W 34CDC 01	8.6	140	53	2.9	9.0	542	535	.00	.00	.08
23S 23W 06CAB 01	14	110	270	2.0	9.0	860	859	.10	.40	.03
24S 23W 34AAD 01	26	63	28	2.6	34	424	427	.30	1.3	--

LOCAL IDENT-I-FIER	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)
22S 24W 34CDC 01	0	100	0	0	10	460	0	40	.0	1
23S 23W 06CAB 01	--	--	--	--	--	--	--	--	--	--
24S 23W 34AAD 01	--	--	--	--	--	--	--	--	--	--

LOCAL IDENT-I-FIER	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)	ALDRIN, TOTAL (UG/L)	ATRA-ZINE, TOTAL (UG/L)	CHLOR-DANE, TOTAL (UG/L)	O,P' DDT, TOTAL (UG/L)	P,P' DDT, TOTAL (UG/L)	DI-ELDRIN TOTAL (UG/L)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)	RADIUM 226, SUS-PENDED TOTAL (PCI/L)
22S 24W 34CDC 01	0	60	.02	ND	ND	ND	ND	.05	E9.7	E.2
23S 23W 06CAB 01	--	--	--	--	--	--	--	--	--	--
24S 23W 34AAD 01	--	--	--	--	--	--	--	--	--	--

LOCAL IDENT-I-FIER	CARBON, ORGANIC TOTAL (MG/L AS C)	ENDRIN, TOTAL (UG/L)	LINDANE TOTAL (UG/L)	METH-OXY-CHLOR, TOTAL (UG/L)	PCB, TOTAL (UG/L)	TOX-APHENE, TOTAL (UG/L)	DACTHAL TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)
22S 24W 34CDC 01	2.2	ND	.02	ND	ND	ND	.05	ND	ND	ND
23S 23W 06CAB 01	--	--	--	--	--	--	--	--	--	--
24S 23W 34AAD 01	--	--	--	--	--	--	--	--	--	--

ND NOT DETECTED; DETECTION LIMIT IS <0.4 UG/L.
E ESTIMATED VALUE.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

KEARNY COUNTY

LOCAL IDENT- I- FIER	STATION NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE OF SAMPLE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	HARD- NESS (MG/L AS CACO3)
21S 37W 02CDD 01	381458101211001	134	121OGLL	79-07-11	700	7.7	17.0	.30	250
23S 35W 25BBB 02	380153101071302	320	121OGLL	79-07-30	2100	7.4	14.0	.20	980
23S 37W 28CCB 01	380108101234301	300	121OGLL	79-06-28	700	7.8	19.0	.50	280
26S 37W 21DDD 01	374557101215101	330	121OGLL	79-07-30	630	7.4	14.0	.20	240

LOCAL IDENT- I- FIER	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)
21S 37W 02CDD 01	54	46	33	52	30	1.4	7.0	240	0	197
23S 35W 25BBB 02	810	300	57	100	18	1.4	9.0	190	0	156
23S 37W 28CCB 01	140	59	32	35	21	.9	6.0	170	0	139
26S 37W 21DDD 01	19	61	22	35	24	1.0	4.0	270	0	221

LOCAL IDENT- I- FIER	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
21S 37W 02CDD 01	7.7	110	33	1.9	54	480	481	5.8	26	.01
23S 35W 25BBB 02	12	850	110	.7	29	--	1580	4.1	18	.00
23S 37W 28CCB 01	4.3	140	52	1.0	23	444	450	4.1	18	.01
26S 37W 21DDD 01	17	75	14	1.0	26	383	382	2.5	11	.20

LOCAL IDENT- I- FIER	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
21S 37W 02CDD 01	--	--	--	--	--	--	--	--	--	--
23S 35W 25BBB 02	--	--	--	--	--	--	--	--	--	--
23S 37W 28CCB 01	--	--	--	--	--	--	--	--	--	--
26S 37W 21DDD 01	0	100	0	0	20	90	0	10	.0	3

LOCAL IDENT- I- FIER	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, DIS- SOLVED (UG/L AS ZN)	ALDRIN, TOTAL (UG/L)	ATRA- ZINE, TOTAL (UG/L)	CHLOR- DANE, TOTAL (UG/L)	O,P' DDT, TOTAL (UG/L)	P,P' DDT, TOTAL (UG/L)	DI- ELDRIN TOTAL (UG/L)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)	RADIUM 226, SUS- PENDED TOTAL (PCI/L)
21S 37W 02CDD 01	--	--	--	--	--	--	--	--	--	--
23S 35W 25BBB 02	--	--	--	--	--	--	--	--	--	--
23S 37W 28CCB 01	--	--	--	--	--	--	--	--	--	--
26S 37W 21DDD 01	0	10	.02	ND	ND	ND	ND	.05	E15	E2.2

LOCAL IDENT- I- FIER	CARBON, ORGANIC TOTAL (MG/L AS C)	ENDRIN, TOTAL (UG/L)	LINDANE TOTAL (UG/L)	METH- OXY- CHLOR, TOTAL (UG/L)	PCB, TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)	DACTHAL TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)
21S 37W 02CDD 01	--	--	--	--	--	--	--	--	--	--
23S 35W 25BBB 02	--	--	--	--	--	--	--	--	--	--
23S 37W 28CCB 01	--	--	--	--	--	--	--	--	--	--
26S 37W 21DDD 01	3.0	ND	.02	ND	ND	ND	.05	ND	ND	ND

ND NOT DETECTED; DETECTION LIMIT IS <0.4 UG/L.
E ESTIMATED VALUE.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

KINGMAN COUNTY

LOCAL IDENT-I-FIER	STATION NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO-LOGIC UNIT	DATE OF SAMPLE	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	HARD-NESS (MG/L AS CACO3)
27S 10W 32DCC 01	373846098255701	60	112GDID	79-09-27	540	7.7	16.0	1.0	220
28S 06W 12CDD 01	373711097553301	67	310NNSC	79-09-28	835	7.7	23.0	1.2	390
29S 07W 25BCC 01	372935098023501	--	317SMNH	79-09-28	530	7.5	16.0	1.5	210
29S 07W 26ADB 01	372942098025101	20	--	79-09-28	510	7.5	21.0	1.0	190
30S 05W 12CCA 01	372659097491801	63	112PLSC	79-09-28	410	7.2	15.0	1.0	150
30S 09W 10ADC 01	372658098170301	82	112PLSC	79-09-27	450	7.4	16.0	1.0	190

LOCAL IDENT-I-FIER	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)
27S 10W 32DCC 01	38	78	6.2	13	11	.4	1.0	220	0	180
28S 06W 12CDD 01	130	85	43	30	14	.7	2.0	320	0	262
29S 07W 25BCC 01	0	69	8.7	28	23	.8	1.0	270	0	221
29S 07W 26ADB 01	0	66	6.6	32	26	1.0	1.0	280	0	230
30S 05W 12CCA 01	34	46	9.0	22	24	.8	1.0	140	0	115
30S 09W 10ADC 01	28	67	6.0	16	15	.5	.9	200	0	164

LOCAL IDENT-I-FIER	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)
27S 10W 32DCC 01	7.0	13	15	.4	19	297	296	9.4	42	.03
28S 06W 12CDD 01	10	120	28	.6	15	514	522	9.3	41	.01
29S 07W 25BCC 01	14	10	29	.2	21	306	304	.90	4.0	.05
29S 07W 26ADB 01	14	7.0	18	.4	20	298	299	2.2	9.7	.06
30S 05W 12CCA 01	14	19	14	.3	25	265	263	13	58	.12
30S 09W 10ADC 01	13	18	10	.4	24	280	280	8.9	39	.04

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

KIOWA COUNTY

LOCAL IDENT- I- FIER	STATION NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE OF SAMPLE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	HARD- NESS (MG/L AS CACO3)
27S 20W 34ACC 01	373856099293501	--	--	79-09-12	560	7.6	15.0	.20	240
28S 16W 01CCA 01	373759099013601	148	112PLSC	79-09-12	295	7.2	15.5	.20	120
28S 18W 19CCB 01	373517099201701	134	112PLSC	79-09-12	570	7.4	15.0	.20	250
28S 19W 05CAA 01	373802099252101	--	--	79-09-12	400	7.5	15.0	.20	180
29S 20W 11CDD 01	373131099283501	200	112PLSC	79-09-12	480	7.5	16.0	.30	210

LOCAL IDENT- I- FIER	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)
27S 20W 34ACC 01	22	85	7.8	19	14	.5	3.0	270	0	221
28S 16W 01CCA 01	10	43	3.1	9.8	15	.4	3.0	130	0	107
28S 18W 19CCB 01	38	86	9.1	20	15	.5	3.0	260	0	213
28S 19W 05CAA 01	14	59	8.0	15	15	.5	3.0	200	0	164
29S 20W 11CDD 01	8	67	11	16	14	.5	4.0	250	0	205

LOCAL IDENT- I- FIER	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
27S 20W 34ACC 01	11	13	16	.3	25	340	340	8.5	38	--
28S 16W 01CCA 01	13	8.0	7.0	.3	27	191	189	5.4	24	--
28S 18W 19CCB 01	17	33	26	.3	24	351	350	4.7	21	--
28S 19W 05CAA 01	10	17	9.0	.4	24	261	260	6.0	27	--
29S 20W 11CDD 01	13	18	14	.4	35	201	302	3.0	13	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

LABETTE COUNTY

LOCAL IDENT- I- FIER	STATION NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE OF SAMPLE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	HARD- NESS (MG/L AS CACO3)
33S 18E 10BBB 01	371137095254501	47	321MPLR	79-06-20	3650	6.6	18.0	.50	1800
33S 20E 09DDD 01	371049095124901	92	324EGLV	79-06-20	644	7.4	16.5	.40	270
35S 18E 04CCC 01	370115095265101	190	325BNDR	79-06-20	7500	7.4	20.0	15	160

LOCAL IDENT- I- FIER	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)
33S 18E 10BBB 01	1600	550	110	140	14	1.4	4.0	370	0	303
33S 20E 09DDD 01	0	66	26	26	17	.7	1.0	330	0	271
35S 18E 04CCC 01	0	30	20	1630	96	57	6.0	930	0	763

LOCAL IDENT- I- FIER	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
33S 18E 10BBB 01	149	1800	19	1.1	13	--	2850	7.0	31	.01
33S 20E 09DDD 01	21	44	12	.4	15	354	353	.10	.40	.00
35S 18E 04CCC 01	59	5.0	2030	5.0	10	--	4220	.00	.00	.00

LOCAL IDENT- I- FIER	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
33S 18E 10BBB 01	0	100	13	40	20	60	0	10	.0	68
33S 20E 09DDD 01	--	--	--	--	--	--	--	--	--	--
35S 18E 04CCC 01	--	--	--	--	--	--	--	--	--	--

LOCAL IDENT- I- FIER	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, DIS- SOLVED (UG/L AS ZN)	ALDRIN, TOTAL (UG/L)	ATRA- ZINE, TOTAL (UG/L)	CHLOR- DANE, TOTAL (UG/L)	O,P' DDT, TOTAL (UG/L)	P,P' DDT, TOTAL (UG/L)	DI- ELDRIN TOTAL (UG/L)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)	RADIUM 226, SUS- PENDED TOTAL (PCI/L)
33S 18E 10BBB 01	10	1600	ND	--	ND	ND	ND	ND	E2.4	--
33S 20E 09DDD 01	--	--	--	--	--	--	--	--	--	--
35S 18E 04CCC 01	--	--	--	--	--	--	--	--	--	--

LOCAL IDENT- I- FIER	CARBON, ORGANIC TOTAL (MG/L AS C)	ENDRIN, TOTAL (UG/L)	LINDANE TOTAL (UG/L)	METH- OXY- CHLOR, TOTAL (UG/L)	PCB, TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)	DACTHAL TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)
33S 18E 10BBB 01	4.6	ND	ND	ND	ND	ND	ND	ND	ND	ND
33S 20E 09DDD 01	--	--	--	--	--	--	--	--	--	--
35S 18E 04CCC 01	--	--	--	--	--	--	--	--	--	--

ND NOT DETECTED; DETECTION LIMIT IS <0.4 UG/L.
E ESTIMATED VALUE.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

LANE COUNTY

LOCAL IDENT- I- FIER	STATION NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE OF SAMPLE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	HARD- NESS (MG/L AS CACO3)
16S 29W 26CCC 01	383743100300801	--	121OGLL	79-07-10	555	7.6	16.0	.30	240
17S 27W 20CCC 01	383320100201101	--	121OGLL	79-07-10	545	7.6	15.5	.20	230
18S 28W 18ACC 01	382925100271801	104	121OGLL	79-07-10	830	7.4	15.5	.20	380
18S 30W 02AAA 01	383130100354301	130	121OGLL	79-07-10	970	7.4	15.0	.20	400
20S 29W 03CCB 01	382020100310501	80	121OGLL	79-07-10	625	7.6	16.0	.20	240

LOCAL IDENT- I- FIER	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)
16S 29W 26CCC 01	57	58	22	20	15	.6	6.0	220	0	180
17S 27W 20CCC 01	52	59	21	21	16	.6	5.0	220	0	180
18S 28W 18ACC 01	140	80	45	27	13	.6	8.0	290	0	238
18S 30W 02AAA 01	190	93	42	38	17	.8	8.0	260	0	213
20S 29W 03CCB 01	38	59	23	35	23	1.0	7.0	250	0	205

LOCAL IDENT- I- FIER	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
16S 29W 26CCC 01	8.8	52	28	2.2	61	374	376	4.2	19	.01
17S 27W 20CCC 01	8.8	57	27	2.5	62	380	379	3.6	16	.01
18S 28W 18ACC 01	18	86	64	3.5	77	565	560	6.0	27	.01
18S 30W 02AAA 01	17	160	70	2.7	62	631	628	5.5	24	.01
20S 29W 03CCB 01	10	46	32	1.1	30	395	395	8.8	39	.01

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

LYON COUNTY

LOCAL IDENT- I- FIER	STATION NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE OF SAMPLE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	HARD- NESS (MG/L AS CACO3)
16S 13E 20DBA 01	383839095594101	26	112TRRC	79-06-15	1930	7.1	16.0	.40	530
21S 10E 26CDC 01	381122096164501	90	321FRDC	79-06-14	730	7.2	17.5	.50	310
21S 13E 27AAB 01	381208095574301	26	322SVRY	79-06-14	1530	7.6	21.5	.70	690

LOCAL IDENT- I- FIER	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)
16S 13E 20DBA 01	130	180	20	120	33	2.3	.7	480	0	394
21S 10E 26CDC 01	30	110	11	35	19	.9	1.0	340	0	279
21S 13E 27AAB 01	430	200	50	85	21	1.4	1.0	320	0	262

LOCAL IDENT- I- FIER	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
16S 13E 20DBA 01	61	280	45	.4	14	951	950	12	53	.01
21S 10E 26CDC 01	34	59	22	.2	14	448	450	6.9	31	.01
21S 13E 27AAB 01	13	500	25	.3	13	--	1100	17	75	.02

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

MARION COUNTY

LOCAL IDENT-I-FIER	STATION NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO-LOGIC UNIT	DATE OF SAMPLE	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	HARD-NESS (MG/L AS CACO3)
19S 01E 04ACC 01	382542097192801	67	310NNSC	79-09-28	370	6.7	14.0	1.2	120
20S 01E 33ABB 01	381626097192801	90	310NNSC	79-08-03	3450	7.4	19.0	7.0	2000
21S 01E 07BAA 01	381444097214401	40	112PLSC	79-08-03	900	7.7	15.0	1.0	240
21S 02E 26CBC 01	381133097110701	61	310WLNG	79-08-22	3500	7.4	20.5	7.0	2200

LOCAL IDENT-I-FIER	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)
19S 01E 04ACC 01	30	37	7.7	25	30	1.0	1.0	110	0	90
20S 01E 33ABB 01	1900	530	160	140	13	1.4	5.0	94	0	77
21S 01E 07BAA 01	0	82	9.6	66	37	1.8	2.0	360	0	295
21S 02E 26CBC 01	1900	620	150	81	8	.8	4.0	370	0	303

LOCAL IDENT-I-FIER	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)
19S 01E 04ACC 01	35	35	19	.3	17	230	228	7.1	31	.02
20S 01E 33ABB 01	6.0	1940	120	1.0	16	--	2960	.10	.40	.01
21S 01E 07BAA 01	11	31	27	.7	24	447	432	2.9	13	.02
21S 02E 26CBC 01	24	1800	100	1.4	11	--	3050	28	124	.00

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

MCPHERSON COUNTY

LOCAL IDENT- I- FIER	STATION NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE OF SAMPLE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	HARD- NESS (MG/L AS CACO3)
17S 03W 17DBD 01	383413097402001	86	112ALVM	79-04-25	1310	7.5	15.0	1.2	570
17S 05W 23DAB 01	383328097500901	41	112ALVM	79-04-06	955	7.5	14.0	1.0	430
18S 03W 14BDD 01	382915097371801	87	112PLSC	79-04-06	1010	7.2	6.0	1.2	420
19S 03W 29DBA 02	382208097402002	160	112PLSC	79-08-22	810	7.4	16.5	1.0	400
20S 02W 11BAA 01	381958097304101	48	112PLSC	79-04-24	1140	7.5	14.0	1.5	470
21S 03W 02DCD 01	381451097365701	35	112PLSC	79-04-24	875	7.0	14.0	4.5	300

LOCAL IDENT- I- FIER	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)
17S 03W 17DBD 01	210	170	34	58	18	1.1	9.0	450	0	369
17S 05W 23DAB 01	67	120	29	59	23	1.3	2.0	410	0	336
18S 03W 14BDD 01	0	130	23	70	27	1.5	2.0	500	0	410
19S 03W 29DBA 02	110	140	12	21	10	.5	3.0	360	0	295
20S 02W 11BAA 01	84	140	29	98	31	2.0	2.0	460	0	377
21S 03W 02DCD 01	140	100	11	52	27	1.3	3.0	180	0	148

LOCAL IDENT- I- FIER	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
17S 03W 17DBD 01	23	170	120	.6	29	810	815	.60	2.7	.04
17S 05W 23DAB 01	21	100	32	.5	20	653	631	15	66	.08
18S 03W 14BDD 01	50	34	79	.4	32	625	617	.10	.40	.08
19S 03W 29DBA 02	23	31	87	.5	37	524	523	3.1	14	.02
20S 02W 11BAA 01	23	200	48	.7	22	791	791	5.6	25	.06
21S 03W 02DCD 01	29	54	160	.3	27	532	520	19	84	.29

LOCAL IDENT- I- FIER	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
17S 03W 17DBD 01	--	--	--	--	--	--	--	--	--	--
17S 05W 23DAB 01	--	--	--	--	--	--	--	--	--	--
18S 03W 14BDD 01	--	--	--	--	--	--	--	--	--	--
19S 03W 29DBA 02	0	600	0	0	0	10	0	0	.0	0
20S 02W 11BAA 01	--	--	--	--	--	--	--	--	--	--
21S 03W 02DCD 01	--	--	--	--	--	--	--	--	--	--

LOCAL IDENT- I- FIER	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, DIS- SOLVED (UG/L AS ZN)	ALDRIN, TOTAL (UG/L)	ATRA- ZINE, TOTAL (UG/L)	CHLOR- DANE, TOTAL (UG/L)	O,P' DDT, TOTAL (UG/L)	P,P' DDT, TOTAL (UG/L)	DI- ELDRIN TOTAL (UG/L)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)	RADIUM 226, SUS- PENDED TOTAL (PCI/L)
17S 03W 17DBD 01	--	--	--	--	--	--	--	--	--	--
17S 05W 23DAB 01	--	--	--	--	--	--	--	--	--	--
18S 03W 14BDD 01	--	--	--	--	--	--	--	--	--	--
19S 03W 29DBA 02	0	40	ND	ND	ND	ND	ND	ND	E10	E.4
20S 02W 11BAA 01	--	--	--	--	--	--	--	--	--	--
21S 03W 02DCD 01	--	--	--	--	--	--	--	--	--	--

LOCAL IDENT- I- FIER	CARBON, ORGANIC TOTAL (MG/L AS C)	ENDRIN, TOTAL (UG/L)	LINDANE TOTAL (UG/L)	METH- OXY- CHLOR, TOTAL (UG/L)	PCB, TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)	DACTHAL TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)
17S 03W 17DBD 01	--	--	--	--	--	--	--	--	--	--
17S 05W 23DAB 01	--	--	--	--	--	--	--	--	--	--
18S 03W 14BDD 01	--	--	--	--	--	--	--	--	--	--
19S 03W 29DBA 02	3.7	ND	ND	ND	ND	ND	ND	ND	ND	ND
20S 02W 11BAA 01	--	--	--	--	--	--	--	--	--	--
21S 03W 02DCD 01	--	--	--	--	--	--	--	--	--	--

ND NOT DETECTED; DETECTION LIMIT IS <0.4 UG/L.
E ESTIMATED VALUE.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

MEADE COUNTY

LOCAL IDENTIFIER	STATION NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEOLOGIC UNIT	DATE OF SAMPLE	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (NTU)	HARDNESS (MG/L AS CACO3)
30S 26W 07BBB 01	372719100124901	230	121OGLL	79-09-18	660	7.1	15.0	.50	290
31S 30W 16BBC 01	372117100354701	200	121OGLL	79-09-18	440	8.0	16.5	.30	170
32S 28W 04ABB 01	371752100221201	--	121OGLL	79-09-18	350	7.2	16.0	.30	150
33S 29W 32AAD 01	370813100292401	--	121OGLL	79-09-18	480	7.7	17.0	.30	200
35S 30W 10CDB 01	370048100342901	260	121OGLL	79-08-01	1550	7.8	17.0	.30	250

LOCAL IDENTIFIER	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)
30S 26W 07BBB 01	92	85	19	23	14	.6	4.0	250	0	205
31S 30W 16BBC 01	12	50	11	23	22	.8	4.0	190	0	156
32S 28W 04ABB 01	0	46	9.1	15	17	.5	3.0	190	0	156
33S 29W 32AAD 01	36	54	16	22	19	.7	4.0	200	0	164
35S 30W 10CDB 01	82	69	19	240	67	6.6	4.0	200	0	164

LOCAL IDENTIFIER	CARBON DIOXIDE DISSOLVED (MG/L AS CO2)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRATE DISSOLVED (MG/L AS N)	NITROGEN, NITRATE DISSOLVED (MG/L AS NO3)	PHOSPHORUS, TOTAL (MG/L AS P)
30S 26W 07BBB 01	32	73	48	.6	27	411	415	2.8	12	.00
31S 30W 16BBC 01	3.0	42	14	.8	22	271	270	2.1	9.3	.00
32S 28W 04ABB 01	19	20	7.0	.7	23	227	228	2.4	11	.00
33S 29W 32AAD 01	6.4	59	19	.9	24	305	305	1.7	7.5	.00
35S 30W 10CDB 01	5.1	96	360	.9	22	926	916	1.4	6.2	.01

LOCAL IDENTIFIER	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	SELENIUM, DISSOLVED (UG/L AS SE)
30S 26W 07BBB 01	--	--	--	--	--	--	--	--	--	--
31S 30W 16BBC 01	0	200	0	0	0	40	0	0	.0	3
32S 28W 04ABB 01	--	--	--	--	--	--	--	--	--	--
33S 29W 32AAD 01	--	--	--	--	--	--	--	--	--	--
35S 30W 10CDB 01	--	--	--	--	--	--	--	--	--	--

LOCAL IDENTIFIER	SILVER, DISSOLVED (UG/L AS AG)	ZINC, DISSOLVED (UG/L AS ZN)	ALDRIN, TOTAL (UG/L)	ATRAZINE, TOTAL (UG/L)	CHLORDANE, TOTAL (UG/L)	O,P' DDT, TOTAL (UG/L)	P,P' DDT, TOTAL (UG/L)	DIELDRIN TOTAL (UG/L)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)	RADIUM 226, SUSPENDED TOTAL (PCI/L)
30S 26W 07BBB 01	--	--	--	--	--	--	--	--	--	--
31S 30W 16BBC 01	0	10	--	--	--	--	--	--	--	--
32S 28W 04ABB 01	--	--	--	--	--	--	--	--	--	--
33S 29W 32AAD 01	--	--	--	--	--	--	--	--	--	--
35S 30W 10CDB 01	--	--	--	--	--	--	--	--	--	--

LOCAL IDENTIFIER	CARBON, ORGANIC TOTAL (MG/L AS C)	ENDRIN, TOTAL (UG/L)	LINDANE TOTAL (UG/L)	METHOXYCHLOR, TOTAL (UG/L)	PCB, TOTAL (UG/L)	TOXAPHENE, TOTAL (UG/L)	DACTHAL TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)
30S 26W 07BBB 01	--	--	--	--	--	--	--	--	--	--
31S 30W 16BBC 01	1.6	--	--	--	--	--	--	--	--	--
32S 28W 04ABB 01	--	--	--	--	--	--	--	--	--	--
33S 29W 32AAD 01	--	--	--	--	--	--	--	--	--	--
35S 30W 10CDB 01	--	--	--	--	--	--	--	--	--	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

MONTGOMERY COUNTY

LOCAL IDENT- I- FIER	STATION NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE OF SAMPLE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	HARD- NESS (MG/L AS CACO3)
31S 13E 26ACC 01	371920095571401	16	322DGLS	79-06-12	618	7.4	21.0	.60	200
33S 16E 18BDD 01	371030095420901	106	323KSBC	79-06-12	930	7.5	19.0	1.0	420
33S 16E 33DCC 01	370726095395101	--	323KSBC	79-06-12	165	6.7	17.0	.50	52
34S 14E 30BCB 01	370347095553401	--	322DGLS	79-06-13	362	7.8	19.5	.50	120

LOCAL IDENT- I- FIER	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)
31S 13E 26ACC 01	0	64	8.0	55	38	1.7	.7	220	0	180
33S 16E 18BDD 01	140	96	43	40	17	.9	2.0	330	0	271
33S 16E 33DCC 01	12	16	2.9	12	33	.7	.3	49	0	40
34S 14E 30BCB 01	60	35	7.0	22	29	.9	3.0	69	0	57

LOCAL IDENT- I- FIER	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
31S 13E 26ACC 01	14	55	35	.3	15	379	370	6.3	28	.03
33S 16E 18BDD 01	17	160	28	.4	10	579	574	7.2	32	.01
33S 16E 33DCC 01	16	23	6.0	.2	20	122	118	1.3	5.0	.10
34S 14E 30BCB 01	1.7	45	48	1.0	4.0	198	202	.60	2.7	.01

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

MORRIS COUNTY

LOCAL IDENT- I- FIER	STATION NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE OF SAMPLE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	HARD- NESS (MG/L AS CACO3)
14S 06E 34AAC 01	384742096450301	120	319CHSE	79-07-24	1040	7.9	15.0	1.2	430
14S 08E 07DAC 01	385044096334401	100	319CHSE	79-09-21	815	7.4	14.0	1.2	350
14S 09E 31DDC 01	384701096265801	28	319CHSE	79-09-21	800	7.2	19.5	26	390
16S 05E 14BCB 01	383945096511901	90	319CHSE	79-07-24	2100	7.6	15.0	9.0	780

LOCAL IDENT- I- FIER	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)
14S 06E 34AAC 01	94	130	29	59	22	1.2	2.0	420	0	344
14S 08E 07DAC 01	36	110	20	35	18	.8	1.0	390	0	320
14S 09E 31DDC 01	63	120	20	17	9	.4	3.0	410	0	336
16S 05E 14BCB 01	300	150	98	99	19	1.5	120	590	0	484

LOCAL IDENT- I- FIER	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
14S 06E 34AAC 01	8.5	96	62	.2	21	661	668	14	62	.02
14S 08E 07DAC 01	25	50	27	.2	17	482	485	7.3	32	.02

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

MORTON COUNTY

LOCAL IDENT- I- FIER	STATION NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE OF SAMPLE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	HARD- NESS (MG/L AS CACO3)
31S 40W 29ABB 01	371945101412701	215	121OGLL	79-08-02	600	7.6	15.0	.20	240
32S 42W 14CCC 01	371531101514501	187	121OGLL	79-08-02	690	7.6	15.0	.10	260
33S 43W 22DAA 01	370946101582401	116	121OGLL	79-08-02	740	7.8	21.0	.30	250
34S 42W 20DD 02	370418101540802	120	121OGLL	79-08-02	600	7.5	18.0	.20	240

LOCAL IDENT- I- FIER	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)
31S 40W 29ABB 01	68	46	30	34	23	1.0	3.0	210	0	172
32S 42W 14CCC 01	77	42	38	33	21	.9	4.0	230	0	189
33S 43W 22DAA 01	38	37	39	61	34	1.7	6.0	250	0	205
34S 42W 20DD 02	34	70	15	32	23	.9	2.0	240	0	197

LOCAL IDENT- I- FIER	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
31S 40W 29ABB 01	8.4	95	25	2.3	22	378	377	3.7	16	.00
32S 42W 14CCC 01	9.2	140	16	3.7	31	442	432	2.4	11	.01
33S 43W 22DAA 01	6.3	140	16	2.4	30	479	471	3.7	16	.01
34S 42W 20DD 02	12	52	29	.4	30	379	376	6.2	27	.00

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

NEOSHO COUNTY

LOCAL IDENT-I-FIER	STATION NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO-LOGIC UNIT	DATE OF SAMPLE	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	HARD-NESS (MG/L AS CACO3)
27S 17E 36BBC 01	373932095301101	180	321CHNT	79-06-20	884	7.8	19.5	.20	80
28S 19E 14CDC 01	373611095175801	18	112WSCS	79-06-21	960	6.9	18.5	.20	410

LOCAL IDENT-I-FIER	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)
27S 17E 36BBC 01	0	19	7.9	140	79	6.8	2.0	380	0	312
28S 19E 14CDC 01	110	150	8.2	22	10	.5	.2	340	0	279

LOCAL IDENT-I-FIER	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)
27S 17E 36BBC 01	9.6	17	31	.9	13	417	421	.70	3.1	.00
28S 19E 14CDC 01	68	34	52	.2	16	530	521	16	71	.04

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

NESS COUNTY

LOCAL IDENT- I- FIER	STATION NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE OF SAMPLE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	HARD- NESS (MG/L AS CACO3)
17S 26W 07ABC 01	383544100141001	--	--	79-09-06	2900	7.0	15.0	.20	1200
17S 26W 07BAD 01	383544100141001	--	--	79-09-06	730	7.2	13.0	.20	350
18S 24W 36ADB 01	382645099551201	59	112ALVM	79-09-06	895	7.3	15.0	.30	350

LOCAL IDENT- I- FIER	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)
17S 26W 07ABC 01	940	400	50	220	28	2.8	7.0	320	0	262
17S 26W 07BAD 01	52	130	10	10	9	.4	2.0	360	0	295
18S 24W 36ADB 01	100	100	23	44	21	1.0	12	300	0	246

LOCAL IDENT- I- FIER	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
17S 26W 07ABC 01	51	940	270	.8	32	--	2220	7.5	33	--
17S 26W 07BAD 01	36	47	14	.4	25	524	525	21	93	--
18S 24W 36ADB 01	24	150	49	1.0	26	553	553	.10	.40	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

PAWNEE COUNTY

LOCAL IDENT-I-FIER	STATION NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO-LOGIC UNIT	DATE OF SAMPLE	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	HARD-NESS (MG/L AS CACO3)
20S 16W 15BCB 01	381654099051201	--	211CLRD	79-08-17	1550	7.2	14.0	.60	680
22S 16W 23CDA 01	380745099030501	--	112PLSC	79-08-17	570	7.5	14.0	.50	220
22S 19W 10BBB 01	380929099241101	130	112PLSC	79-08-17	780	7.1	15.0	.40	240
23S 15W 06BBD 01	380500099010901	88	112PLSC	79-08-17	640	7.7	14.0	.70	230

LOCAL IDENT-I-FIER	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)
20S 16W 15BCB 01	360	240	18	68	18	1.1	4.0	390	0	320
22S 16W 23CDA 01	12	77	7.8	65	38	1.9	3.0	260	0	213
22S 19W 10BBB 01	0	70	16	69	38	1.9	5.0	300	0	246
23S 15W 06BBD 01	0	78	9.1	42	28	1.2	4.0	280	0	230

LOCAL IDENT-I-FIER	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)
20S 16W 15BCB 01	39	200	180	.4	24	968	962	8.0	35	.03
22S 16W 23CDA 01	13	34	87	.4	23	438	439	3.0	13	.04
22S 19W 10BBB 01	38	53	62	1.3	17	448	447	1.3	5.8	.04
23S 15W 06BBD 01	6.9	39	40	.6	20	--	387	3.8	17	.02

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

PRATT COUNTY

LOCAL IDENT-I-FIER	STATION NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO-LOGIC UNIT	DATE OF SAMPLE	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	HARD-NESS (MG/L AS CACO3)
28S 14W 02CDC 01	373754098492701	105	112KNSN	79-09-20	440	7.7	18.5	1.2	190
29S 14W 23BBA 01	373047098493401	110	112KNSN	79-09-27	390	7.4	16.5	1.0	160

LOCAL IDENT-I-FIER	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)
28S 14W 02CDC 01	12	67	5.1	14	14	.4	3.0	210	0	172
29S 14W 23BBA 01	0	58	3.7	14	16	.5	3.0	200	0	164

LOCAL IDENT-I-FIER	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)
28S 14W 02CDC 01	6.7	10	17	.3	25	264	262	3.8	17	.04
29S 14W 23BBA 01	13	9.0	12	.2	24	237	239	3.7	16	.04

LOCAL IDENT-I-FIER	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)
28S 14W 02CDC 01	--	--	--	--	--	--	--	--	--	--
29S 14W 23BBA 01	0	300	0	0	0	10	0	20	.0	0

LOCAL IDENT-I-FIER	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)	ALDRIN, TOTAL (UG/L)	ATRA-ZINE, TOTAL (UG/L)	CHLOR-DANE, TOTAL (UG/L)	O,P' DDT, TOTAL (UG/L)	P,P' DDT, TOTAL (UG/L)	DI-ELDRIN TOTAL (UG/L)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)	RADIUM 226, SUS-PENDED TOTAL (PCI/L)
28S 14W 02CDC 01	--	--	--	--	--	--	--	--	--	--
29S 14W 23BBA 01	0	30	.02	ND	ND	ND	ND	.05	E.0	--

LOCAL IDENT-I-FIER	CARBON, ORGANIC TOTAL (MG/L AS C)	ENDRIN, TOTAL (UG/L)	LINDANE TOTAL (UG/L)	METH-OXY-CHLOR, TOTAL (UG/L)	PCB, TOTAL (UG/L)	TOX-APHENE, TOTAL (UG/L)	DACTHAL TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)
28S 14W 02CDC 01	--	--	--	--	--	--	--	--	--	--
29S 14W 23B9A 01	.6	ND	.02	ND	ND	ND	.05	ND	ND	ND

ND NOT DETECTED; DETECTION LIMIT IS <0.4 UG/L.
E ESTIMATED VALUE.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

RENO COUNTY

LOCAL IDENT-I-FIER	STATION NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO-LOGIC UNIT	DATE OF SAMPLE	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	HARD-NESS (MG/L AS CACO3)
22S 04W 12DDD 02	380845097421002	88	112MCPR	79-09-26	945	7.4	15.0	7.5	430
23S 06W 06BCB 01	380456098015501	30	112PLSC	79-09-14	970	7.4	17.5	1.0	230
24S 09W 10BCC 01	375841098182301	36	112CRET	79-09-14	400	6.9	19.0	1.2	140
25S 04W 05DAD 01	375408097462901	54	112WSCS	79-09-26	935	7.5	16.0	1.0	330
26S 08W 32ABB 01	374446098130301	--	112PLSC	79-09-14	415	7.1	19.5	1.2	150

LOCAL IDENT-I-FIER	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)
22S 04W 12DDD 02	140	130	26	46	19	1.0	2.0	360	0	295
23S 06W 06BCB 01	22	75	11	85	44	2.4	3.0	260	0	213
24S 09W 10BCC 01	38	51	4.1	13	16	.5	1.0	130	0	107
25S 04W 05DAD 01	18	110	15	61	28	1.4	2.0	400	0	328
26S 08W 32ABB 01	66	48	6.9	17	20	.6	2.0	100	0	82

LOCAL IDENT-I-FIER	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)
22S 04W 12DDD 02	23	180	41	.4	30	630	633	.00	.00	.18
23S 06W 06BCB 01	17	49	110	.8	9.0	492	496	5.6	25	.06
24S 09W 10BCC 01	26	24	10	.2	29	236	237	9.2	41	.07
25S 04W 05DAD 01	20	43	55	.3	26	530	546	8.2	36	.09
26S 08W 32ABB 01	13	25	13	.3	23	264	264	18	80	.09

LOCAL IDENT-I-FIER	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)
22S 04W 12DDD 02	--	--	--	--	--	--	--	--	--	--
23S 06W 06BCB 01	--	--	--	--	--	--	--	--	--	--
24S 09W 10BCC 01	--	--	--	--	--	--	--	--	--	--
25S 04W 05DAD 01	0	300	0	0	10	10	0	0	.5	0
26S 08W 32ABB 01	--	--	--	--	--	--	--	--	--	--

LOCAL IDENT-I-FIER	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)	ALDRIN, TOTAL (UG/L)	ATRA-ZINE, TOTAL (UG/L)	CHLOR-DANE, TOTAL (UG/L)	O,P' DDT, TOTAL (UG/L)	P,P' DDT, TOTAL (UG/L)	DI-ELDRIN TOTAL (UG/L)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)	RADIUM 226, SUS-PENDED TOTAL (PCI/L)
22S 04W 12DDD 02	--	--	--	--	--	--	--	--	--	--
23S 06W 06BCB 01	--	--	--	--	--	--	--	--	--	--
24S 09W 10BCC 01	--	--	--	--	--	--	--	--	--	--
25S 04W 05DAD 01	0	30	.02	ND	ND	ND	ND	.05	E1.2	--
26S 08W 32ABB 01	--	--	--	--	--	--	--	--	--	--

LOCAL IDENT-I-FIER	CARBON, ORGANIC TOTAL (MG/L AS C)	ENDRIN, TOTAL (UG/L)	LINDANE TOTAL (UG/L)	METH-OXY-CHLOR, TOTAL (UG/L)	PCB, TOTAL (UG/L)	TOX-APHENE, TOTAL (UG/L)	DACTHAL TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)
22S 04W 12DDD 02	--	--	--	--	--	--	--	--	--	--
23S 06W 06BCB 01	--	--	--	--	--	--	--	--	--	--
24S 09W 10BCC 01	--	--	--	--	--	--	--	--	--	--
25S 04W 05DAD 01	1.1	ND	.02	ND	ND	ND	.05	ND	ND	ND
26S 08W 32ABB 01	--	--	--	--	--	--	--	--	--	--

ND NOT DETECTED; DETECTION LIMIT IS <0.4 UG/L.
E ESTIMATED VALUE.

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

RICE COUNTY

LOCAL IDENT- I- FIER	STATION NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE OF SAMPLE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	HARD- NESS (MG/L AS CACO3)
18S 10W 32ADB 01	382643098264501	80	112ALVM	79-04-25	2060	7.6	16.0	4.5	480
19S 06W 17ABB 02	382420098002302	34	112ALVM	79-08-22	840	7.5	20.5	2.2	250
19S 09W 31DAB 01	382116098210601	60	112WSCS	79-04-25	1130	7.5	14.0	1.2	320
20S 08W 23ABA 01	381813098101101	50	112PLSC	79-04-25	760	7.8	13.5	3.0	230
21S 09W 08BAB 01	381443098203301	30	112ALVM	79-04-25	1200	7.6	12.0	1.2	450

LOCAL IDENT- I- FIER	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)
18S 10W 32ADB 01	230	130	39	260	54	5.1	3.0	310	0	254
19S 06W 17ABB 02	86	88	7.9	68	37	1.9	2.0	200	0	164
19S 09W 31DAB 01	93	110	11	100	40	2.4	3.0	270	0	221
20S 08W 23ABA 01	46	70	14	65	37	1.9	3.0	230	0	189
21S 09W 08BAB 01	210	140	26	82	28	1.7	3.0	270	0	221

LOCAL IDENT- I- FIER	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
18S 10W 32ADB 01	12	90	500	.4	49	--	1200	.30	1.3	.03
19S 06W 17ABB 02	10	20	150	.3	21	474	476	4.5	20	.03
19S 09W 31DAB 01	14	25	200	.3	27	643	632	5.1	23	.08
20S 08W 23ABA 01	5.8	55	90	.6	20	447	449	4.0	18	.07
21S 09W 08BAB 01	11	200	120	1.0	14	760	750	7.1	31	.01

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

RUSH COUNTY

LOCAL IDENT-I-FIER	STATION NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO-LOGIC UNIT	DATE OF SAMPLE	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	HARD-NESS (MG/L AS CACO3)
16S 17W 16DCD 01	383916099121801	320	211DKOT	79-06-27	2240	8.0	15.0	9.5	56
17S 20W 30CCB 01	383234099350501	325	211DKOT	79-06-27	2200	8.0	18.0	3.5	52
18S 16W 23AAA 02	382842099030902	75	112PLSC	79-08-01	960	7.7	16.0	1.5	370
18S 20W 20DCA 01	382802099332201	47	112PLSC	79-06-27	1850	7.2	20.0	1.0	970
19S 17W 23BBD 01	382321099103701	232	--	79-06-27	460	7.5	19.5	9.0	110

LOCAL IDENT-I-FIER	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)
16S 17W 16DCD 01	0	13	5.7	450	94	26	8.0	280	0	230
17S 20W 30CCB 01	0	11	6.0	440	94	27	8.0	290	0	238
18S 16W 23AAA 02	82	130	12	32	15	.7	5.0	360	0	295
18S 20W 20DCA 01	660	330	36	91	17	1.3	10	400	0	328
19S 17W 23BBD 01	0	26	11	64	54	2.7	7.0	270	0	221

LOCAL IDENT-I-FIER	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)
16S 17W 16DCD 01	4.5	200	440	3.8	7.0	--	1260	.10	.40	.00
17S 20W 30CCB 01	4.6	210	420	2.8	10	--	1240	.10	.40	.00
18S 16W 23AAA 02	11	66	62	.4	37	527	529	1.6	7.1	.10
18S 20W 20DCA 01	40	620	140	.8	37	--	1490	9.3	41	.14
19S 17W 23BBD 01	14	14	20	.8	10	285	286	.10	.40	.00

LOCAL IDENT-I-FIER	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)
16S 17W 16DCD 01	--	--	--	--	--	--	--	--	--	--
17S 20W 30CCB 01	--	--	--	--	--	--	--	--	--	--
18S 16W 23AAA 02	10	300	1	0	10	20	0	10	1.0	0
18S 20W 20DCA 01	--	--	--	--	--	--	--	--	--	--
19S 17W 23BBD 01	--	--	--	--	--	--	--	--	--	--

LOCAL IDENT-I-FIER	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)	ALDRIN, TOTAL (UG/L)	ATRA-ZINE, TOTAL (UG/L)	CHLOR-DANE, TOTAL (UG/L)	O,P' DDT, TOTAL (UG/L)	P,P' DDT, TOTAL (UG/L)	DI-ELDRIN TOTAL (UG/L)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)	RADIUM 226, SUS-PENDED TOTAL (PCI/L)
16S 17W 16DCD 01	--	--	--	--	--	--	--	--	--	--
17S 20W 30CCB 01	--	--	--	--	--	--	--	--	--	--
18S 16W 23AAA 02	0	110	ND	ND	ND	ND	ND	ND	E7.4	E.2
18S 20W 20DCA 01	--	--	--	--	--	--	--	--	--	--
19S 17W 23BBD 01	--	--	--	--	--	--	--	--	--	--

LOCAL IDENT-I-FIER	CARBON, ORGANIC TOTAL (MG/L AS C)	ENDRIN, TOTAL (UG/L)	LINDANE TOTAL (UG/L)	METH-OXY-CHLOR, TOTAL (UG/L)	PCB, TOTAL (UG/L)	TOX-APHENE, TOTAL (UG/L)	DACTHAL TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)
16S 17W 16DCD 01	--	--	--	--	--	--	--	--	--	--
17S 20W 30CCB 01	--	--	--	--	--	--	--	--	--	--
18S 16W 23AAA 02	2.0	ND	ND	ND	ND	ND	ND	ND	ND	ND
18S 20W 20DCA 01	--	--	--	--	--	--	--	--	--	--
19S 17W 23BBD 01	--	--	--	--	--	--	--	--	--	--

ND NOT DETECTED; DETECTION LIMIT IS <0.4 UG/L.
E ESTIMATED VALUE.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

SCOTT COUNTY

LOCAL IDENT- I- FIER	STATION NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE OF SAMPLE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	HARD- NESS (MG/L AS CACO3)
17S 32W 05ABB 01	383645100523901	208	121OGLL	79-07-10	650	7.4	16.0	.30	300
17S 33W 07BBB 01	383553101005701	202	121OGLL	79-08-15	540	7.6	14.0	.20	190
17S 34W 06BCB 01	383633101073401	194	--	79-08-22	510	7.5	15.0	.70	190
18S 32W 14BBB 01	382947100495001	180	121OGLL	79-07-10	500	7.7	16.0	.30	210
19S 31W 20BAD 01	382333100460001	134	121OGLL	79-08-03	980	7.3	14.0	.20	400

LOCAL IDENT- I- FIER	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)
17S 32W 05ABB 01	130	86	22	31	18	.8	6.0	200	0	164
17S 33W 07BBB 01	5	46	18	36	30	1.2	6.0	220	0	180
17S 34W 06BCB 01	22	48	18	32	26	1.0	5.0	200	0	164
18S 32W 14BBB 01	13	46	23	27	21	.8	6.0	240	0	197
19S 31W 20BAD 01	220	130	22	31	14	.7	7.0	230	0	189

LOCAL IDENT- I- FIER	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
17S 32W 05ABB 01	13	97	50	2.0	37	503	478	11	49	.01
17S 33W 07BBB 01	8.8	59	17	2.4	50	360	358	3.0	13	.02
17S 34W 06BCB 01	10	48	21	1.8	32	329	324	4.5	20	.00
18S 32W 14BBB 01	7.7	35	15	2.6	60	354	355	4.9	22	.01
19S 31W 20BAD 01	18	83	110	.6	38	595	597	14	62	.02

LOCAL IDENT- I- FIER	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
17S 32W 05ABB 01	--	--	--	--	--	--	--	--	--	--
17S 33W 07BBB 01	--	--	--	--	--	--	--	--	--	--
17S 34W 06BCB 01	0	200	0	0	10	10	0	0	.0	3
18S 32W 14BBB 01	--	--	--	--	--	--	--	--	--	--
19S 31W 20BAD 01	--	--	--	--	--	--	--	--	--	--

LOCAL IDENT- I- FIER	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, DIS- SOLVED (UG/L AS ZN)	ALDRIN, TOTAL (UG/L)	ATRA- ZINE, TOTAL (UG/L)	CHLOR- DANE, TOTAL (UG/L)	O,P' DDT, TOTAL (UG/L)	P,P' DDT, TOTAL (UG/L)	DI- ELDRIN TOTAL (UG/L)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)	RADIUM 226, SUS- PENDED TOTAL (PCI/L)
17S 32W 05ABB 01	--	--	--	--	--	--	--	--	--	--
17S 33W 07BBB 01	--	--	--	--	--	--	--	--	--	--
17S 34W 06BCB 01	0	10	ND	ND	ND	ND	ND	ND	E.0	E.0
18S 32W 14BBB 01	--	--	--	--	--	--	--	--	--	--
19S 31W 20BAD 01	--	--	--	--	--	--	--	--	--	--

LOCAL IDENT- I- FIER	CARBON, ORGANIC TOTAL (MG/L AS C)	ENDRIN, TOTAL (UG/L)	LINDANE TOTAL (UG/L)	METH- OXY- CHLOR, TOTAL (UG/L)	PCB, TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)	DACTHAL TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)
17S 32W 05ABB 01	--	--	--	--	--	--	--	--	--	--
17S 33W 07BBB 01	--	--	--	--	--	--	--	--	--	--
17S 34W 06BCB 01	3.8	ND	ND	ND	ND	ND	ND	ND	ND	ND
18S 32W 14BBB 01	--	--	--	--	--	--	--	--	--	--
19S 31W 20BAD 01	--	--	--	--	--	--	--	--	--	--

ND NOT DETECTED; DETECTION LIMIT IS <0.4 UG/L.
E ESTIMATED VALUE.

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

SEDGWICK COUNTY

LOCAL IDENT-I-FIER	STATION NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO-LOGIC UNIT	DATE OF SAMPLE	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	HARD-NESS (MG/L AS CACO3)
25S 01E 01ABB 01	375440097160901	35	317BMNR	79-09-13	1000	7.2	16.5	1.0	450
25S 01W 07BAA 01	375340097281901	130	112PLSC	79-09-13	565	7.3	19.0	1.0	210
27S 02W 32BBB 01	373954097341101	94	112PLSC	79-09-13	835	7.5	16.0	1.2	360
29S 01E 08CBB 01	373233097295801	36	112PLSC	79-08-09	570	7.9	19.0	1.0	200
29S 02W 23DDA 01	373031097295401	52	112PLSC	79-08-09	650	7.1	17.5	1.5	250

LOCAL IDENT-I-FIER	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)
25S 01E 01ABB 01	140	140	26	39	16	.8	1.0	390	0	320
25S 01W 07BAA 01	14	67	9.0	38	28	1.1	2.0	240	0	197
27S 02W 32BBB 01	38	110	22	56	25	1.3	2.0	400	0	328
29S 01E 08CBB 01	0	59	12	44	32	1.4	2.0	270	0	221
29S 02W 23DDA 01	30	69	19	39	25	1.1	2.0	270	0	221

LOCAL IDENT-I-FIER	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)
25S 01E 01ABB 01	39	89	48	.5	15	625	630	18	80	.03
25S 01W 07BAA 01	19	60	20	.5	19	351	353	4.1	18	.05
27S 02W 32BBB 01	20	130	28	.4	18	561	565	.40	1.8	.11
29S 01E 08CBB 01	5.4	30	10	.3	22	346	346	5.8	26	.10
29S 02W 23DDA 01	34	51	38	.3	27	403	403	5.5	24	.13

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

SEWARD COUNTY

LOCAL IDENT- I- FIER	STATION NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE OF SAMPLE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	HARD- NESS (MG/L AS CACO3)
31S 32W 03DAD 01	372239100464501	412	121OGLL	79-08-01	650	7.5	16.0	.40	250
32S 32W 14BBB 01	371615100463701	420	121OGLL	79-08-01	690	7.5	16.0	.20	250
33S 33W 02A 01	371237100522301	--	121OGLL	79-08-01	650	7.6	16.0	.20	260
35S 34W 10BBB 01	370128101004001	353	121OGLL	79-08-01	1150	7.5	15.0	.20	440

LOCAL IDENT- I- FIER	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)
31S 32W 03DAD 01	57	67	20	44	27	1.2	4.0	220	0	180
32S 32W 14BBB 01	73	66	20	45	28	1.2	5.0	200	0	164
33S 33W 02A 01	73	66	23	33	21	.9	4.0	220	0	180
35S 34W 10BBB 01	250	110	39	52	20	1.1	4.0	220	0	180

LOCAL IDENT- I- FIER	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
31S 32W 03DAD 01	11	80	32	.9	23	393	397	4.0	18	.00
32S 32W 14BBB 01	10	140	18	.9	23	438	428	2.6	12	.00
33S 33W 02A 01	8.8	110	20	.8	24	410	403	3.1	14	.01
35S 34W 10BBB 01	11	110	170	.9	30	661	651	6.1	27	.00

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

STAFFORD COUNTY

LOCAL IDENT- I- FIER	STATION NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE OF SAMPLE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	HARD- NESS (MG/L AS CACO3)
22S 13W 21DDB 01	380703098450301	100	112PLSC	79-08-30	610	7.6	17.0	2.5	260
23S 13W 33DDB 01	380020098453601	80	112MEDE	79-08-30	685	7.4	18.5	1.0	220
24S 15W 15CDA 01	375727098573201	79	112MEDE	79-08-30	550	7.6	16.5	1.0	190
25S 11W 01BCB 01	375423098292301	50	112PLSC	79-08-30	460	7.3	16.5	1.0	140
25S 15W 30ABC 01	375059099004001	50	--	79-09-27	650	7.7	16.5	1.0	250

LOCAL IDENT- I- FIER	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)
22S 13W 21DDB 01	72	94	7.2	17	12	.5	4.0	240	0	197
23S 13W 33DDB 01	0	70	11	46	31	1.3	3.0	270	0	221
24S 15W 15CDA 01	2	70	4.2	30	25	.9	6.0	230	0	189
25S 11W 01BCB 01	10	53	1.9	31	32	1.1	1.0	160	0	131
25S 15W 30ABC 01	40	86	9.1	42	26	1.2	3.0	270	0	221

LOCAL IDENT- I- FIER	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
22S 13W 21DDB 01	9.6	24	34	.4	23	376	379	13	58	.06
23S 13W 33DDB 01	17	35	41	.5	22	382	382	4.5	20	.06
24S 15W 15CDA 01	9.2	37	31	.5	14	307	306	.10	.40	.02
25S 11W 01BCB 01	13	19	32	.3	18	263	264	6.6	29	.05
25S 15W 30ABC 01	8.6	52	43	.6	20	409	415	5.9	26	.06

LOCAL IDENT- I- FIER	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
22S 13W 21DDB 01	--	--	--	--	--	--	--	--	--	--
23S 13W 33DDB 01	0	300	0	0	10	20	0	0	.5	1
24S 15W 15CDA 01	--	--	--	--	--	--	--	--	--	--
25S 11W 01BCB 01	--	--	--	--	--	--	--	--	--	--
25S 15W 30ABC 01	--	--	--	--	--	--	--	--	--	--

LOCAL IDENT- I- FIER	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, DIS- SOLVED (UG/L AS ZN)	ALDRIN, TOTAL (UG/L)	ATRA- ZINE, TOTAL (UG/L)	CHLOR- DANE, TOTAL (UG/L)	O,P' DDT, TOTAL (UG/L)	P,P' DDT, TOTAL (UG/L)	DI- ELDRIN TOTAL (UG/L)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)	RADIUM 226, SUS- PENDED TOTAL (PCI/L)
22S 13W 21DDB 01	--	--	--	--	--	--	--	--	--	--
23S 13W 33DDB 01	0	10	ND	ND	ND	ND	ND	ND	E7.0	E.2
24S 15W 15CDA 01	--	--	--	--	--	--	--	--	--	--
25S 11W 01BCB 01	--	--	--	--	--	--	--	--	--	--
25S 15W 30ABC 01	--	--	--	--	--	--	--	--	--	--

LOCAL IDENT- I- FIER	CARBON, ORGANIC TOTAL (MG/L AS C)	ENDRIN, TOTAL (UG/L)	LINDANE TOTAL (UG/L)	METH- OXY- CHLOR, TOTAL (UG/L)	PCB, TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)	DACTHAL TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)
22S 13W 21DDB 01	--	--	--	--	--	--	--	--	--	--
23S 13W 33DDB 01	4.3	ND	ND	ND	ND	ND	ND	ND	.20	.20
24S 15W 15CDA 01	--	--	--	--	--	--	--	--	--	--
25S 11W 01BCB 01	--	--	--	--	--	--	--	--	--	--
25S 15W 30ABC 01	--	--	--	--	--	--	--	--	--	--

ND NOT DETECTED; DETECTION LIMIT IS <0.4 UG/L.
E ESTIMATED VALUE.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

STANTON COUNTY

LOCAL IDENT- I- FIER	STATION NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE OF SAMPLE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	HARD- NESS (MG/L AS CACO3)
27S 39W 13ACB 01	374210101320301	588	211DKOT	79-07-30	900	7.4	17.0	.30	360
27S 42W 11DBB 01	374249101524101	252	121OGLL	79-07-31	620	7.6	15.5	.40	250
28S 39W 31BCC 01	373413101380001	488	121OGLL	79-07-31	660	7.5	16.0	.30	260
29S 42W 24CCC 01	373010101521101	515	211DKOT	79-07-31	580	7.4	15.5	.30	220
30S 39W 23BBB 01	372543101333801	405	121OGLL	79-08-03	555	7.6	15.0	.20	210
30S 43W 28DCD 01	372412102011801	--	--	79-07-31	1240	7.5	14.5	--	470

LOCAL IDENT- I- FIER	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)
27S 39W 13ACB 01	160	91	36	46	21	1.0	5.0	240	0	197
27S 42W 11DBB 01	93	70	18	29	20	.8	4.0	190	0	156
28S 39W 31BCC 01	120	70	22	31	20	.8	4.0	170	0	139
29S 42W 24CCC 01	35	54	21	35	25	1.0	4.0	210	0	172
30S 39W 23BBB 01	59	51	20	31	24	.9	4.0	180	0	148
30S 43W 28DCD 01	280	99	55	72	25	1.4	5.0	230	0	189

LOCAL IDENT- I- FIER	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
27S 39W 13ACB 01	15	230	20	1.2	27	590	581	1.5	6.6	.01
27S 42W 11DBB 01	7.6	130	16	.8	19	396	392	2.7	12	.00
28S 39W 31BCC 01	8.6	140	26	.9	22	422	414	3.3	15	.00
29S 42W 24CCC 01	13	91	17	1.7	19	359	351	1.2	5.3	.00
30S 39W 23BBB 01	7.2	81	30	1.4	20	340	339	2.7	12	.00
30S 43W 28DCD 01	12	290	90	1.7	22	770	765	3.9	17	.00

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

STEVENS COUNTY

LOCAL IDENT- I- FIER	STATION NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE OF SAMPLE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	HARD- NESS (MG/L AS CACO3)
31S 35W 26DCC 01	371858101053601	420	121OGLL	79-08-01	690	7.5	17.0	.20	270
32S 37W 10DCC 01	371621101194001	480	121OGLL	79-08-02	500	7.6	16.0	2.4	200
33S 38W 06AAB 01	371246101290701	360	121OGLL	79-08-02	1130	7.7	15.0	.20	420

LOCAL IDENT- I- FIER	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)
31S 35W 26DCC 01	86	58	32	38	23	1.0	5.0	210	0	172
32S 37W 10DCC 01	29	50	19	21	18	.6	4.0	210	0	172
33S 38W 06AAB 01	220	98	43	70	26	1.5	5.0	240	0	197

LOCAL IDENT- I- FIER	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
31S 35W 26DCC 01	11	110	39	1.3	22	424	419	3.3	15	.10
32S 37W 10DCC 01	8.4	42	27	.9	35	313	313	2.3	10	.01
33S 38W 06AAB 01	7.7	220	96	.7	27	718	715	8.4	37	.01

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

SUMNER COUNTY

LOCAL IDENT-I-FIER	STATION NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO-LOGIC UNIT	DATE OF SAMPLE	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	HARD-NESS (MG/L AS CACO3)
31S 01E 04BDC 01	372307097192901	87	310WLNG	79-07-19	1360	7.4	17.0	1.0	480
31S 02E 02BBB 02	372325097110702	70	310WLNG	79-07-19	710	6.8	16.0	1.0	320
32S 04W 09CCC 04	371624097455604	74	310NNSC	79-09-19	450	7.8	17.5	1.2	170
33S 02E 06BBA 01	371300097151201	44	310WLNG	79-07-19	3300	7.5	22.5	2.5	1200
35S 03W 17AAD 01	370028097392301	71	310NNSC	79-07-12	1020	7.8	24.5	1.2	440

LOCAL IDENT-I-FIER	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)
31S 01E 04BDC 01	120	140	29	94	30	1.9	2.0	430	0	353
31S 02E 02BBB 02	110	110	14	21	12	.5	4.0	280	0	230
32S 04W 09CCC 04	0	42	16	28	26	.9	1.0	220	0	180
33S 02E 06BBA 01	890	300	100	260	53	3.3	4.0	360	0	295
35S 03W 17AAD 01	48	99	48	39	16	.8	.9	470	0	385

LOCAL IDENT-I-FIER	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)
31S 01E 04BDC 01	27	57	200	.1	22	765	761	1.1	4.9	.17
31S 02E 02BBB 02	71	110	19	.3	19	486	462	6.0	27	.09
32S 04W 09CCC 04	5.6	19	10	.3	26	283	284	7.5	33	.03
33S 02E 06BBA 01	18	660	500	.6	14	--	2060	11	49	.01
35S 03W 17AAD 01	12	55	88	.3	31	596	589	8.3	37	.32

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

WABAUNSEE COUNTY

LOCAL IDENTIFIER	STATION NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEOLOGIC UNIT	DATE OF SAMPLE	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (NTU)	HARDNESS (MG/L AS CACO3)
10S 12E 28CCC 01	390843096052301	56	112NMMN	79-06-21	1090	6.9	20.5	60	320
12S 09E 02DCD 01	390147096223901	112	319CCGV	79-08-31	665	7.4	16.0	.90	330
14S 08E 02AAA 01	385207096290101	100	322WBNS	79-06-21	934	7.0	12.0	.20	350
14S 10E 03BAB 01	385207096173501	52	319CCGV	79-06-21	628	8.2	18.0	.20	310

LOCAL IDENTIFIER	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)
10S 12E 28CCC 01	0	90	22	86	37	2.1	3.0	440	0	361
12S 09E 02DCD 01	4	96	22	11	7	.3	1.0	400	0	328
14S 08E 02AAA 01	40	86	33	29	15	.7	1.0	390	0	320
14S 10E 03BAB 01	41	99	15	8.2	5	.2	2.0	330	--	271

LOCAL IDENTIFIER	CARBON DIOXIDE DISSOLVED (MG/L AS CO2)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRATE DISSOLVED (MG/L AS N)	NITROGEN, NITRATE DISSOLVED (MG/L AS NO3)	PHOSPHORUS, TOTAL (MG/L AS P)
10S 12E 28CCC 01	89	6.0	100	.6	27	554	551	.00	.00	.05
12S 09E 02DCD 01	25	20	8.0	.4	12	371	372	1.1	4.9	.01
14S 08E 02AAA 01	62	82	18	.6	14	454	461	1.0	4.4	.01
14S 10E 03BAB 01	3.3	27	21	.3	14	384	357	1.9	8.4	.01

LOCAL IDENTIFIER	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	SELENIUM, DISSOLVED (UG/L AS SE)
10S 12E 28CCC 01	--	--	--	--	--	--	--	--	--	--
12S 09E 02DCD 01	--	--	--	--	--	--	--	--	--	--
14S 08E 02AAA 01	10	200	0	10	0	30	0	10	.0	0
14S 10E 03BAB 01	--	--	--	--	--	--	--	--	--	--

LOCAL IDENTIFIER	SILVER, DISSOLVED (UG/L AS AG)	ZINC, DISSOLVED (UG/L AS ZN)	ALDRIN, TOTAL (UG/L)	ATRAZINE, TOTAL (UG/L)	CHLORDANE, TOTAL (UG/L)	O,P' DDT, TOTAL (UG/L)	P,P' DDT, TOTAL (UG/L)	DIELDRIN TOTAL (UG/L)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)	RADIUM 226, SUSPENDED TOTAL (PCI/L)
10S 12E 28CCC 01	--	--	--	--	--	--	--	--	--	--
12S 09E 02DCD 01	--	--	--	--	--	--	--	--	--	--
14S 08E 02AAA 01	0	160	.02	ND	ND	ND	ND	.05	E44	E3.5
14S 10E 03BAB 01	--	--	--	--	--	--	--	--	--	--

LOCAL IDENTIFIER	CARBON, ORGANIC TOTAL (MG/L AS C)	ENDRIN, TOTAL (UG/L)	LINDANE TOTAL (UG/L)	METHOXYCHLOR, TOTAL (UG/L)	PCB, TOTAL (UG/L)	TOXAPHENE, TOTAL (UG/L)	DACTHAL TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)
10S 12E 28CCC 01	--	--	--	--	--	--	--	--	--	--
12S 09E 02DCD 01	--	--	--	--	--	--	--	--	--	--
14S 08E 02AAA 01	--	ND	.02	ND	ND	ND	.05	ND	ND	ND
14S 10E 03BAB 01	--	--	--	--	--	--	--	--	--	--

ND NOT DETECTED; DETECTION LIMIT IS <0.4 UG/L.
E ESTIMATED VALUE.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

WICHITA COUNTY

LOCAL IDENT- I- FIER	STATION NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO- LOGIC UNIT	DATE OF SAMPLE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	HARD- NESS (MG/L AS CACO3)
16S 35W 31DBA 01	383712101133001	178	121OGLL	79-07-11	720	7.5	15.0	.20	310
16S 37W 30ACB 01	383816101264801	220	121OGLL	79-07-11	660	7.5	16.0	.20	250
18S 35W 34ABB 01	382711101101701	143	121OGLL	79-08-02	630	7.5	13.5	.20	250
18S 37W 03CCC 01	383043101240301	190	121OGLL	79-07-11	600	7.6	16.0	.20	280
20S 38W 17CBD 01	381840101324401	--	121OGLL	79-07-11	585	7.8	16.0	.30	220

LOCAL IDENT- I- FIER	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)
16S 35W 31DBA 01	130	82	26	31	17	.8	6.0	220	0	180
16S 37W 30ACB 01	84	59	25	39	25	1.1	6.0	190	0	156
18S 35W 34ABB 01	60	64	23	29	19	.8	6.0	240	0	197
18S 37W 03CCC 01	140	66	28	32	20	.8	5.0	170	0	139
20S 38W 17CBD 01	76	43	28	36	25	1.0	5.0	180	0	148

LOCAL IDENT- I- FIER	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
16S 35W 31DBA 01	11	130	37	1.5	32	478	480	5.9	26	.00
16S 37W 30ACB 01	9.6	100	35	1.6	28	420	414	6.0	27	.01
18S 35W 34ABB 01	12	69	34	1.9	57	418	420	4.0	18	.02
18S 37W 03CCC 01	6.8	100	58	1.6	49	457	453	6.8	30	.01
20S 38W 17CBD 01	4.6	82	42	1.5	32	377	378	4.4	19	.00

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

WILSON COUNTY

LOCAL IDENTIFIER	STATION NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEOLOGIC UNIT	DATE OF SAMPLE	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (NTU)	HARDNESS (MG/L AS CACO3)
27S 14E 25BBB 01	374032095495801	68	--	79-06-14	702	7.2	20.0	60	330
27S 16E 23DAA 01	374056095370201	10	323LNSG	79-06-11	620	7.3	19.0	1.0	310
30S 16E 15BCC 01	372611095390801	--	323LINN	79-06-20	535	7.8	14.5	.20	160

LOCAL IDENTIFIER	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)
27S 14E 25BBB 01	0	100	18	26	15	.6	2.0	440	0	361
27S 16E 23DAA 01	50	110	6.9	13	9	.3	.8	300	0	246
30S 16E 15BCC 01	74	56	4.9	12	14	.4	3.0	100	0	82

LOCAL IDENTIFIER	CARBON DIOXIDE DISSOLVED (MG/L AS CO2)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRATE DISSOLVED (MG/L AS N)	NITROGEN, NITRATE DISSOLVED (MG/L AS NO3)	PHOSPHORUS, TOTAL (MG/L AS P)
27S 14E 25BBB 01	44	10	14	.5	18	404	405	.00	.00	.01
27S 16E 23DAA 01	24	46	13	.3	11	379	370	4.7	21	.04
30S 16E 15BCC 01	2.5	69	25	.8	4.0	226	227	.40	1.8	4.0

LOCAL IDENTIFIER	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	SELENIUM, DISSOLVED (UG/L AS SE)
27S 14E 25BBB 01	--	--	--	--	--	--	--	--	--	--
27S 16E 23DAA 01	--	--	--	--	--	--	--	--	--	--
30S 16E 15BCC 01	0	100	0	20	40	60	0	0	.0	0

LOCAL IDENTIFIER	SILVER, DISSOLVED (UG/L AS AG)	ZINC, DISSOLVED (UG/L AS ZN)	ALDRIN, TOTAL (UG/L)	ATRAZINE, TOTAL (UG/L)	CHLORDANE, TOTAL (UG/L)	O,P' DDT, TOTAL (UG/L)	P,P' DDT, TOTAL (UG/L)	DIELDRIN TOTAL (UG/L)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)	RADIUM 226, SUSPENDED TOTAL (PCI/L)
27S 14E 25BBB 01	--	--	--	--	--	--	--	--	--	--
27S 16E 23DAA 01	--	--	--	--	--	--	--	--	--	--
30S 16E 15BCC 01	0	780	.02	ND	ND	ND	ND	.05	E1.1	--

LOCAL IDENTIFIER	CARBON, ORGANIC TOTAL (MG/L AS C)	ENDRIN, TOTAL (UG/L)	LINDANE TOTAL (UG/L)	METHOXYCHLOR, TOTAL (UG/L)	PCB, TOTAL (UG/L)	TOXAPHENE, TOTAL (UG/L)	DACTHAL TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)
27S 14E 25BBB 01	--	--	--	--	--	--	--	--	--	--
27S 16E 23DAA 01	--	--	--	--	--	--	--	--	--	--
30S 16E 15BCC 01	2.8	ND	.02	ND	ND	ND	.05	ND	ND	ND

ND NOT DETECTED; DETECTION LIMIT IS <0.4 UG/L.
E ESTIMATED VALUE.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

WOODSON COUNTY

LOCAL IDENT-I-FIER	STATION NUMBER	DEPTH OF WELL, TOTAL (FEET)	GEO-LOGIC UNIT	DATE OF SAMPLE	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	HARD-NESS (MG/L AS CACO3)
25S 14E 16CCB 01.	375208095525901	30	322DGLS	79-06-14	624	7.8	19.5	.80	290
25S 15E 08DAD 01	375307095463701	--	322DGLS	79-06-11	545	7.3	20.5	1.6	210

LOCAL IDENT-I-FIER	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)
25S 14E 16CCB 01	40	93	14	24	15	.6	1.0	300	0	246
25S 15E 08DAD 01	50	61	15	31	24	.9	1.0	190	0	156

LOCAL IDENT-I-FIER	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)
25S 14E 16CCB 01	7.6	43	24	.4	8.0	334	372	3.8	17	.00
25S 15E 08DAD 01	15	100	11	.3	13	341	334	1.8	8.0	.02

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October 1, 1978

FACTORS FOR CONVERTING INCH-POUND UNITS TO INTERNATIONAL SYSTEM UNITS (SI)

The following factors may be used to convert the inch-pound units published herein to the International System of Units (SI). This report contains both the inch-pound and SI unit equivalents in the station manuscript descriptions.

Multiply inch-pound units	By	To obtain SI units
	Length	
inches (in)	2.54×10^{1}	millimeters (mm)
	2.54×10^{-2}	meters (m)
feet (ft)	3.048×10^{-1}	meters (m)
miles (mi)	1.609×10^{0}	kilometers (km)
	Area	
acres	4.047×10^{3}	square meters (m^2)
	4.047×10^{-1}	square hectometers (hm^2)
	4.047×10^{-3}	square kilometers (km^2)
square miles (mi^2)	2.590×10^{0}	square kilometers (km^2)
	Volume	
gallons (gal)	3.785×10^{0}	liters (L)
	3.785×10^{0}	cubic decimeters (dm^3)
	3.785×10^{-3}	cubic meters (m^3)
million gallons	3.785×10^{3}	cubic meters (m^3)
	3.785×10^{-3}	cubic hectometers (hm^3)
cubic feet (ft^3)	2.832×10^{1}	cubic decimeters (dm^3)
	2.832×10^{-2}	cubic meters (m^3)
cfs-days	2.447×10^{3}	cubic meters (m^3)
	2.447×10^{-3}	cubic hectometers (hm^3)
acre-feet (acre-ft)	1.233×10^{3}	cubic meters (m^3)
	1.233×10^{-3}	cubic hectometers (hm^3)
	1.233×10^{-6}	cubic kilometers (km^3)
	Flow	
cubic feet per second (ft^3/s)	2.832×10^{1}	liters per second (L/s)
	2.832×10^{1}	cubic decimeters per second (dm^3/s)
	2.832×10^{-2}	cubic meters per second (m^3/s)
gallons per minute (gal/min)	6.309×10^{-2}	liters per second (L/s)
	6.309×10^{-2}	cubic decimeters per second (dm^3/s)
	6.309×10^{-5}	cubic meters per second (m^3/s)
million gallons per day	4.381×10^{1}	cubic decimeters per second (dm^3/s)
	4.381×10^{-2}	cubic meters per second (m^3/s)
	Mass	
tons (short)	9.072×10^{-1}	megagrams (Mg) or metric tons